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PASSENGER PROGRESS NUMBER

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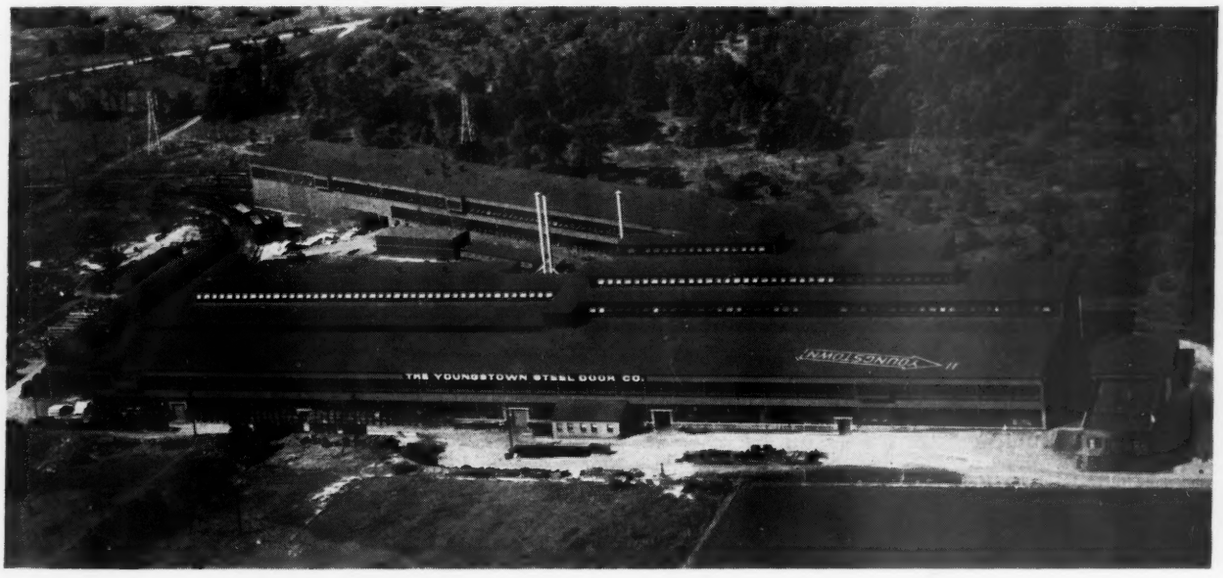

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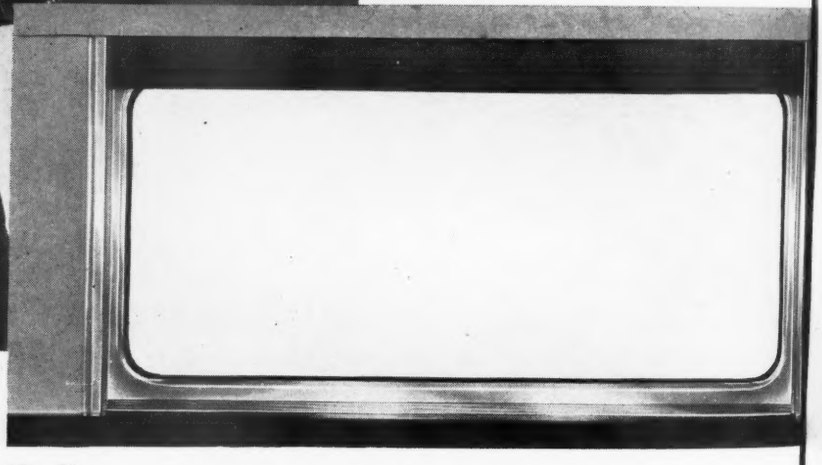

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RAILWAY AGE

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EDITORIALS:

Passenger Traffic Success Lies in Skillful Blending of Physical and Economic Factors 151
Are Space Reservations A Racket? 153
Repeal of Fare Tax Another Year Overdue 154

GENERAL NEWS 216

GENERAL ARTICLES:

Service and Fares Up, Traffic and Revenues Down .. 156
A Travel Agent Looks at the Rails, by Thomas J. Donovan 161
Better Trains and More of 'Em 164
The Quality of the Railroads' Product, by Claude E. Peterson 171

PASSENGER PROGRESS ISSUE

Taking the Guesswork Out of the Passenger Business, by Richard A. Rice, Jr. and John S. Gallagher, Jr. 174
2,001 Passenger-Train Cars on Order for Domestic Use 177
Dining Car Dilemma 184
Fares Up Much Less Than Living Costs 186
Efforts Are Being Made to Reduce Variety in Passenger-Car Design 188
Report on Pullman, by C. R. Harding 191
What Is Being Done Electrically 194
How Much Is Curve Reduction Worth? 196
Signals Add to Passengers' Safety 200
Railroad Passenger Advertising—A Quick Review, 1830-1948, by Joseph J. Finn 202
Railroads Speeding Head-End Work 205
Progress in Passenger Communications 208
What Future for Mail Revenue? 210
Tiny Slice of Auto Market Would Double Rail Traffic 213

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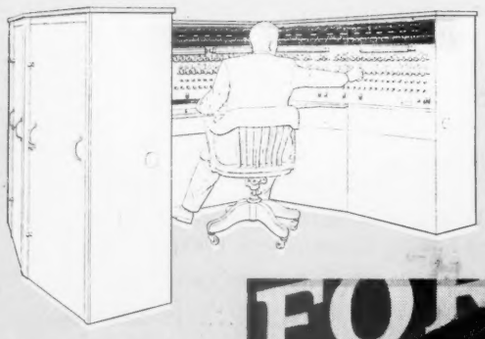

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WEEK AT A GLANCE

PASSENGER FROGRESS CONTINUES: Progress in passenger service—as in any other phase of railroading—is not the achievement of a day, a month, or even of a single year. Nor can it be attained by a few isolated developments, however spectacular. It comes, rather, from a continuing series of advances, some of them seemingly unimportant and often apparently unrelated, but all contributing in a greater or lesser degree to the desired ideal of better and still better service to railroad passengers. The year 1948, like other post war years, has witnessed many such advances, which are summarized and analyzed in the various articles in this, *Railway Age's* tenth Passenger Progress issue.

TRAFFIC AND REVENUE: As was rather generally expected, passenger traffic during the first half of 1948 showed a continuation of the downward trend which began with the end of the war. But the decline was not precipitous, and because of general fare increases passenger revenue for the first six months was off only about 1 per cent as compared with the corresponding period in 1947. Traffic, revenues and rates are analyzed in detail in our leading article, which begins on page 156—while another article, starting at page 186, discusses the comparative cost of travel by rail, by the heavily-subsidized air lines, and by private automobile. The two articles together point up the conclusion that, while railroad fares are still relatively low, they are nevertheless close to the "ceiling" imposed by costs of travel on competitive agencies.

MORE NEW PASSENGER CARS: To the public, at least, passenger progress means passenger cars—newer, better, more comfortable cars. And the railroads are continuing their determined effort to provide the cars which symbolize passenger progress. As of November 1, roads in all parts of the country had on order a grand total of 2,001 new passenger-train cars, designed for all types of passenger service, suburban, local and long distance. A complete list of these cars is included in an article beginning on page 177, which also describes many of the cars and details the service to which they will be assigned. Another article, starting on page 188, outlines some of the steps being taken to standardize passenger-car types and design details, and outlines the advantages which would accrue to both railroads and car builders from such standardization.

BETTER TRAINS, BETTER SERVICE: Still more startling evidence of passenger progress is the installation by several different roads of complete new streamlined trains — 19 of them, with an average daily total of 21,753 train-miles, in 1948. Along with these new trains have gone many general service improvements, faster schedules, new equipment on other trains—and, by no means least, some real improvements on many lines in suburban commuter service. These varied symbols of passenger progress are summarized in an article beginning on page 164, which also tabulates all of the 119 steamlined trains now in service on American railroads.

SOME HIDDEN FACTORS: The public at large may think of passenger progress in terms of spectacular trains and better and brighter cars, but all railroad men know there are many hidden factors, which the public seldom considers, but which are absolutely vital to safe, speedy, comfortable passenger service. Good track, reliable signals, and fast, accurate communications systems all have their parts to play, and no consideration of passenger progress would be complete without due reference to those parts. Accordingly, articles on pages 196, 200 and 208 deal, respectively, with progress in track (with special reference to curve reduction), in signaling (with special reference to signaling safety devices), and in communications.

EVEN PROGRESS MUST BE SOLD: A self-supporting public service industry like the railroads can't be content with making progress; it must also sell that progress to the public. That job of selling involves many factors—advertising in the regular sense of that word; attention to many "little things" that so often make the difference between success and failure; and corrections of those shortcomings that still prevail in passenger service despite its remarkable post war progress. Those factors are discussed in three contributed articles—one on advertising, by Joseph J. Finn, of Reincke, Meyer & Finn (page 202); one on the "little things," by Claude E. Peterson, vice-president of the Southern Pacific (page 171); and one on improvements which may still be made in passenger service, by Thomas J. Donovan, of the Cartan Travel Bureau (page 161).

ELIMINATING THE GUESS WORK: In an article beginning on page 174 two railroad traffic analysts, Richard A. Rice, Jr., and John S. Gallagher, Jr., point out how traffic potential may be estimated.

SKILLFUL BLENDING: Just as no one achievement can by itself represent passenger progress, so no one factor can by itself produce passenger traffic success. That success must come, as our leading editorial shows, by a skillful blending of many factors, physical and economic. But the rewards from such blending are well worth the effort — for instance, as shown in an article beginning on page 213, the railroads could double their passenger traffic if they could succeed in capturing only a tiny fraction of private auto travel. The job may be a big one, but the goal is worth trying hard to reach, and, as this whole issue shows, substantial progress is being made toward it.

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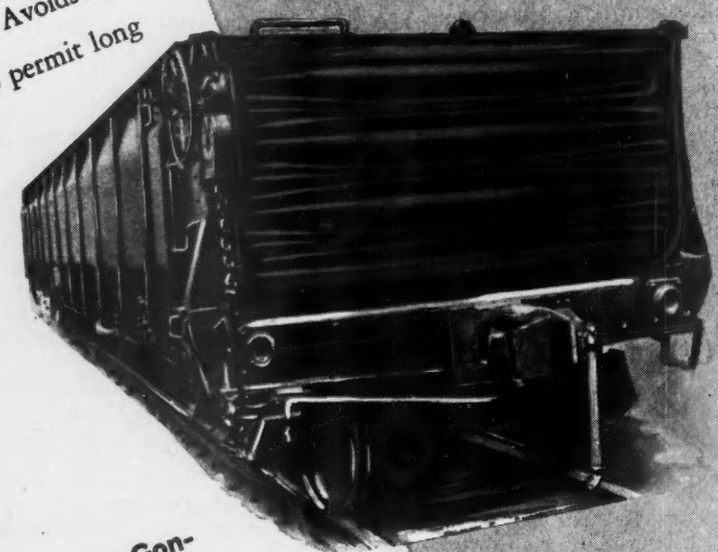

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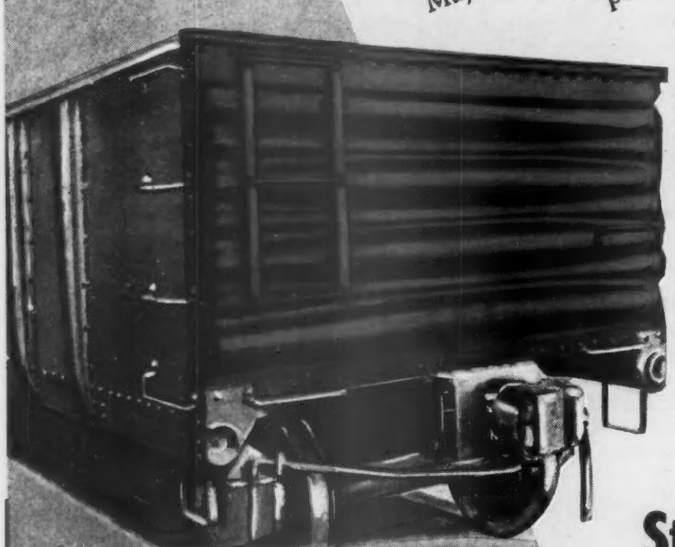

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PASSENGER TRAFFIC SUCCESS LIES IN SKILLFUL BLENDING OF PHYSICAL AND ECONOMIC FACTORS

"Aren't you people on *Railway Age* overemphasizing modern equipment as a factor in solving the railroads' passenger problem—and neglecting adequate discussion of other factors which are equally important, such as attractive speeds, schedules, rates, and merchandising?"

This question was put to this paper within the past few days by a railroad officer who has, probably, given as much analytical study to passenger traffic as anybody else in the country. Our answer to him was: "We publish everything instructive on the economic and service side of passenger traffic that is available in the field. If it seems that the equipment aspect is overemphasized, then that is because there are photographs of equipment which can be printed, but you can't make pictures of attractive fares and schedules. It might be, too, that a publication reflecting what is going on in the field would publish too little on the market side if the field itself were insufficiently attentive to that sector."

This conversation is reported here because the questioner's doubts are fundamental if they are founded on fact. Do the railroads and allied industries analyze and investigate with equal thoroughness *all* the factors which go into establishing passenger service at the level of maximum profitability? For instance, how many man-hours of high-grade engineering skill have the railroads and the manufacturers expended in the development of modern passenger equipment—compared to the man-hours of equally skilled analysis which they have devoted to discovering *optimum* rates, schedules, speed, service, and merchandising practices?

Modern equipment alone will not fill the trains with customers if rates and schedules are not right—and this is no arm-chair opinion but an assertion based upon recent observation, and not just in one place. Speed alone or low rates alone will not turn the trick either. One elusive factor—popular habit, the product of acceptable service combined with skillful promotion, and occasionally a large admixture of luck—is highly helpful, but this is a complex element which cannot be turned off or on at will as most of the others can be.

All the Ingredients

Isn't it reasonably obvious that success in attaining the maximum available net revenue in any given situation must depend upon an effective blending of *all* the ingredients? The equipment must be attractive enough to arouse enthusiasm—or, at least, approval—but not so costly per place-

mile that rates to cover the costs will repel traffic. Rates must not be so high as to drive the customers away, nor so low as not to cover costs. Schedules can be too frequent (i. e., adding disproportionately to costs) as well as too infrequent, or poorly arranged to harmonize with the hours when demand is at its maximum. Courtesy and efficiency on the part of properly trained employees will help to hold and increase traffic—but only if the other factors are right. People cannot be moved from one place to another by courtesy alone.

A cook does not produce a successful cake by omitting the baking powder prior to cooking—and then trying to make up for the deficiency by sprinkling the powder over the cake when it comes out of the oven. Isn't it equally clear that the admixture of the necessary ingredients for prosperous passenger service in their correct quantities must likewise be *simultaneous?* If new equipment is placed in service and allowed to grow old before correct pricing and scheduling are applied, the customers who might have been attracted if all factors had come along together will stay away because they have no hankering for riding jalopies-on-rails at high speeds, even though the fare is low.

The Dominant Goal

There are a lot of people who have a vital interest in the establishment and maintenance by the railroads of profitable, convenient, comfortable, safe and economical passenger service. Many of these people are not fully conscious of their interest—and others see it only in part. It is the purpose of this tenth annual Passenger Progress Issue to make available the information whereby more people may be awakened to an understanding of their interest in this service, where such understanding is lacking; and to enable others who are aware of their interest only in part to see it as a whole.

For example, should not the traffic, operating and financial officers learn all they can about modern equipment so they can support their mechanical departments in making the most appropriate selection? Should not the equipment manufacturers and the mechanical department officers, whose natural interest centers primarily in improved rolling stock or motive power, inform themselves so they can lend all the understanding encouragement possible to the market analysts, whose efforts will largely determine how much new equipment the railroads will be able to purchase, over a term of years?

Wouldn't it be advantageous to passenger traffic officers to moderate their zeal for equipment "tailor made" to local requirements, to make concessions enabling the manufacturers and the mechanical departments to achieve some measure of economy-producing standardization? Every group and department has its specialized interest to advance—but no such departmental concern can be successfully nurtured over the long-term, independently of the equally legitimate interests of the other departments.

To one main goal all lesser departmental objectives must be subordinated, if passenger transportation is to be retained as a permanent part of the railroads' service to the country. This dominant goal is, or should be, to *make passenger service produce net earnings as large as possible above those which would result if no passenger service were provided.* Unless passenger service can produce some net earnings above direct costs, the railroads cannot stay in the business indefinitely and continue to be privately operated and financed. In order that passenger service may yield its maximum contribution to net earnings, it is not necessary that passenger trains should operate "in the black" after meeting all direct and indirect costs. Instead, the service must still be considered profitable whenever a railroad, by providing this service, is *better off in its net earnings* than it would be if passenger business were discarded. On all but one or two railroads, passenger transportation is in greater or less degree a by-product. This does not mean that it should not be charged with its full quota of overhead costs, if the traffic will "bear" such charges. But the service is economically justifiable whenever it produces anything above out-of-pocket costs. And, because this service is required for many important but non-economic reasons (e.g., national defense), it becomes the patriotic duty of all concerned to keep out-of-pocket costs at the lowest possible level.

Every Little Bit Helps

Shippers not infrequently complain that they are being mulcted by high freight rates to reimburse the railroads for losses sustained by passenger service which is actually suffering only a "bookkeeping loss," e.g., a deficit after the inclusion of allocated overhead costs. This contention is incorrect unless the passenger service is producing an actual out-of-pocket loss. If, on the other hand, passenger revenues cover all direct expense and contribute *something,* however little, to overhead—then passenger service helps reduce rates to shippers instead of increasing them. This follows because anything which passenger service contributes to overhead costs, after meeting fully all its direct costs, represents earnings which the railroads would otherwise have to try to secure by charges levied upon their freight patrons.

One way to minimize out-of-pocket costs, and thus assure the continuance of all services which pay their way, is resolutely and promptly to elimin-

ate passenger trains which persistently earn less than their direct costs. One or two bad apples should not be permitted to contaminate the whole barrel.

* * * * *

It is suggested in Holy Writ that man cannot expect by taking thought to add a cubit to his stature. It is not written, however, that thought-taking could not add several cubits to the economic and physical stature of passenger service by thought-taking, particularly if each thought-taker will subordinate his specialized objectives to that of the welfare of the business as a whole. The articles in this issue, supplemented by the informative advertisements of the railroads and the manufacturers provide as much factual basis for such thought-taking, probably, as has ever been conveniently assembled in one place. Prosperous passenger service is not a matter of modern equipment alone, or of attractive rates or schedules or merchandising alone—it is all of these factors skillfully and simultaneously blended in strategic ratios to each other; and all of them in correct proportion to *market potential*. Since this last factor varies from locality to locality, so in all likelihood must the quantity and the ratios of the other factors vary to conform.

ARE SPACE RESERVATIONS A RACKET?

Nobody is satisfied when a producer tries to "ration a shortage." This is so because (1) somebody must go without; (2) the "red tape" of rationing irritates everyone concerned; and (3) "the smart boys"—almost always *outside* the industry—find ways to corner the market and aggravate the trouble.

There is still a shortage of sleeping car space (rooms, principally) and reserved coach seats on the most desirable trains "in season" between large metropolitan cities and resorts—chiefly Florida points—and of enclosed space on some "businessmens' trains" serving industrial or political centers. From some quarters there come charges that the entire railroad industry and its employees are in conspiracy to create an artificial shortage of the more desirable accommodations and gain illicit wealth by selling the hoarded space "at a price." One Miami Beach hotel operator has been particularly active in pressing the Interstate Commerce Commission to make a full investigation of the whole operation of reserving, paying for and redeeming sleeping car, parlor car and reserved seat coach space. Hearings in such an investigation began two days ago. The railroads have much to gain by this opportunity to make a public presentation of the facts and thereby disprove the wild charges of irresponsible and uninformed commentators.

Not Guilty of Inaction

Twice since World War II began the Pullman Company has established progressively stricter rules for the cancellation and redemption of its tickets, designed to facilitate resale of space by the railroads and to discourage tieing up space not actually needed. In addition, last spring, during the peak of travel out of Florida, a special arrangement was put into effect at stations in that state under which tickets for space on northbound trains to Washington, D. C., and beyond had to be redeemed at least two days before departure.

A still more restrictive three-day prior redemption rule will be in effect this season, starting December 15, and it will be applicable in both directions.

This is one indication that the railroads are not guilty of inaction, but these or similar arrangements can by no means be made permanent or nationwide in application, if the railroads are to satisfy their customers. Crooks and selfish people don't reserve all the Pullman space, or make all the cancellations. A *bona fide* patron has a right to change his plans. Any restrictions at all on redemptions put the railroads at a competitive disadvantage with both the air lines and the buses. Neither of the latter require passengers to pay for their tickets prior to departure time in order to hold space, thereby relieving them of any financial responsibility until they actually use the accommodations. Last year some air lines put in a 25 per cent penalty charge for "no shows" but they have since discontinued that restriction. As unused space is a particularly serious problem in commercial airplane operation, it is apparent that the air lines did a lot of close thinking before they decided to sustain the losses from "no shows" rather than risk alienating customers.

The Obligation to Explain

Why, then, since railroad accommodations, on the whole, are as easy to get as seats on planes, and the railroads already have in effect tight restrictions compared with their competitors, should the rail carriers go further in handicapping their service to the public? The railroads lose their revenue from unused Pullman space, even under circumstances where the Pullman Company may retain its ticket charge under the redemption rules, so they may be expected in their own interest to keep cancellation failures to a minimum by all means left to them under the "ceiling" set by their competitors.

If a passenger takes inferior accommodations

because he is told the space he wants is "sold out," he is understandably irritated if he finds empty rooms or sections when he boards the train. He probably does not know that the space may be held for intermediate points or that the passengers who have paid for it may have missed the train. Conductors must be wary about selling uncancelled space en route because holders may turn up to claim it at a subsequent stop. If nobody bothers to explain to him why the space appears to be available, the passenger may conclude that the conductor is holding out for a bribe, or that the ticket seller would have been more accommodating for a tip.

It would appear that the railroads are utilizing every reasonable restriction in their power to prevent the black-marketing of space by hotel employees, travel bureaus and other offenders outside the industry. Malfeasance by their own employees, except in rare and isolated cases, is yet to be proved. On the other hand, the carriers are under an obligation to explain to their patrons why there apparently are unused accommodations on "full" trains. They are being accused by too many of indifference, inefficiency or downright complicity, and injured silence is an ineffective way to dispose of real or imaginary grievances of this kind.

REPEAL OF FARE TAX ANOTHER YEAR OVERDUE

Repeal of the 15 per cent tax on amounts paid for the transportation of persons is now another year overdue. It is 3¼ years since V-J Day, and Congress has taken no action to follow the sound precedent established in 1921 when the similar levy of the World-War-I period was dropped.

Carriers and travel agencies have presented a united front in urging repeal; or at least a substantial reduction in the luxury-tax rate of 15 per cent on a service which is not a peacetime luxury. On behalf of the railroads, it has been pointed out that the demand for their passenger service is highly elastic, and that they encounter keen competition for the business. Thus any increase in the price tends to discourage buyers or divert them to competing modes of travel of which the private automobile, with no comparable tax, is the most formidable.

The past year has brought further augmentation of the tax's repressive effect, because the railroads have been forced by rising costs to make further increases in their fares. These higher fares also tend to discourage travel, but they are based on the informed judgment of passenger-traffic officers who have calculated that the net result will be increased revenues. The excise tax, on the other hand, discourages travel without prospects of any offsetting benefit to railroad passenger revenues as a whole.

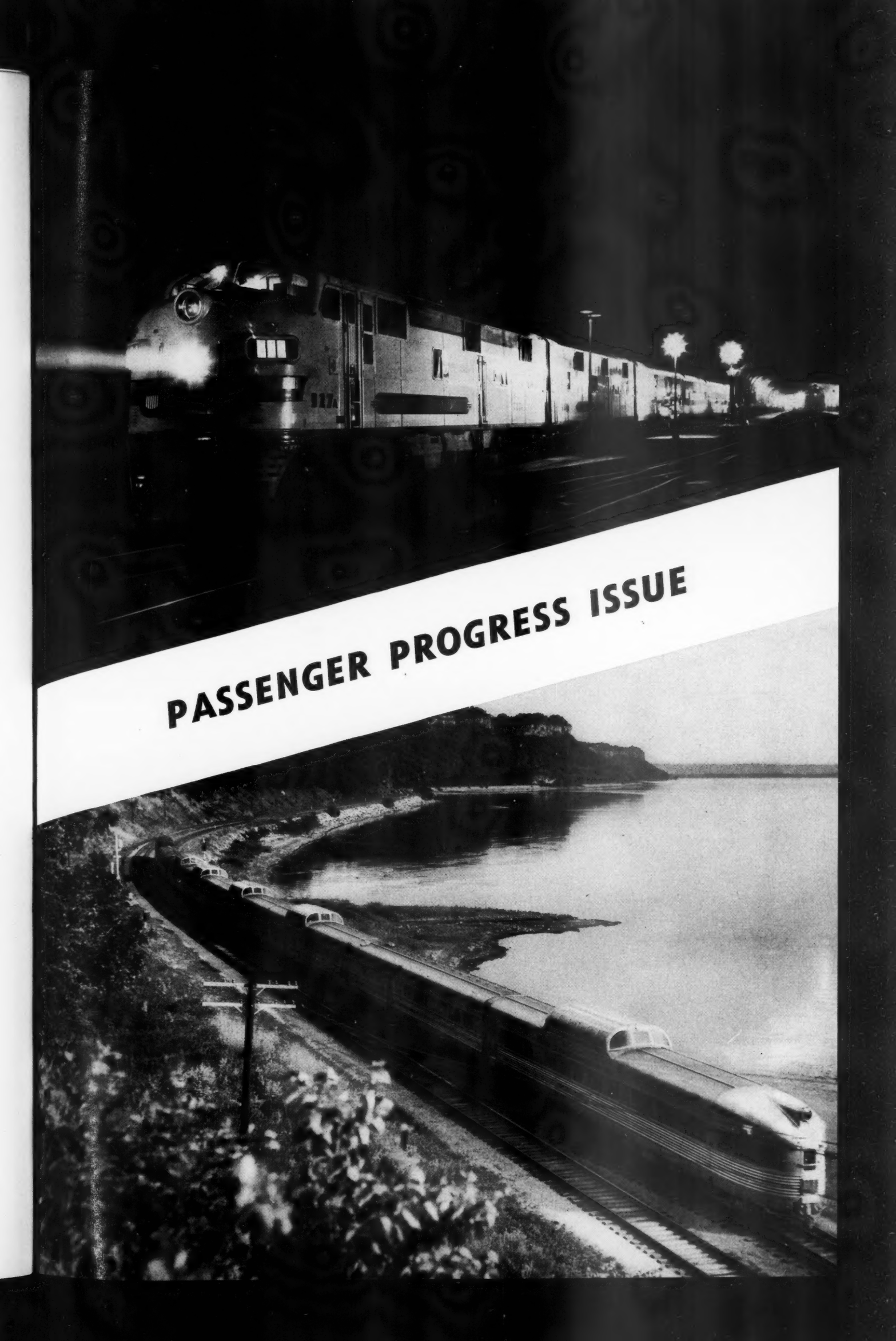
When the tax is applied to the present basic coach fare of 3 cents per mile, the charge to the traveler becomes 3.45 cents—not far short of the 3.6 rate of the 'Twenties and early 'Thirties when passenger business was on the downgrade.

Why has Congress failed to act? "Revenue considerations" appears to be the answer. The fare tax yielded $244 million during the fiscal year ended June 30, 1947, and $246 million during fiscal '48. Proponents of repeal got a sympathetic hearing before the House committee on ways and means of the present Congress; but the Republican leadership was preoccupied with delivering the reduction in personal income taxes while at the same time avoiding responsibility for a budget deficit. Thus, it was their plan to defer consideration of what might be done about eliminating or reducing excise taxes until the next Congress meets in January. Now all bets as to what the Republican majority might have done are off as a result of the national elections which established the Democratic party's control of the next Congress.

This overturn in itself, however, should not be appraised as adverse to the prospects for relief, since such important departments of President Truman's Administration as State, Commerce, Agriculture, and Labor are on record as being "generally favorable" to repeal of the tax. And it should still qualify for repeal under specifications set out by Secretary of the Treasury Snyder when he told the ways and means committee in May, 1947, that each of the excise taxes "should be carefully considered with a view to reducing or eliminating those which are extremely regressive, which enter into business costs, which are unduly burdensome on profits of particular industries. . . ."

Moreover, the discrimination against domestic carriers and travelers who use them was extended last year by legislation that brought many international carriers and their patrons into the preferred group to which domestic travelers by private automobile already belonged. The legislation took the tax off amounts paid for foreign travel outside the "northern portion of the western hemisphere."

No doubt the new House's ways and means committee, like its predecessor, will have "revenue considerations" in mind when it looks over the excise-tax structure. But it should also have in mind the fact that Congress' own transport regulatory policy does not permit "revenue considerations" to justify maintenance by carriers of unreasonable or discriminatory rates.



PASSENGER PROGRESS ISSUE

Standees have disappeared but coaches and Pullmans on most trains are still well filled. The "break-even" point in train load is much higher than it was before the war. The lengthy "Super Chief" (below) of the Santa Fe is a lesson in railroad passenger economics

SERVICE AND FARES UP; TRAFFIC AND REVENUES DOWN

Substantial increase in streamliner fleet and new and expanded services held much traffic to the rails; rapid rise in automobile ownership pushed traffic down about 10 per cent while, due to fare raises, revenues decreased only slightly

It is not easy to characterize the past 12 months in the passenger business. As everyone expected, traffic volume went down, though not precipitously. Revenues fell off only slightly, thanks to fare increases in all territories. But the rate increases, despite the fact that they were far less than could be justified by the railroads' cost of doing business and the general increase in the price of consumers' goods and services, nevertheless brought fare levels to the point where they now bump the ceilings imposed by the lesser increases in the rates of the railroads' common-carrier competitors. Some observers say the roads are in real danger, to

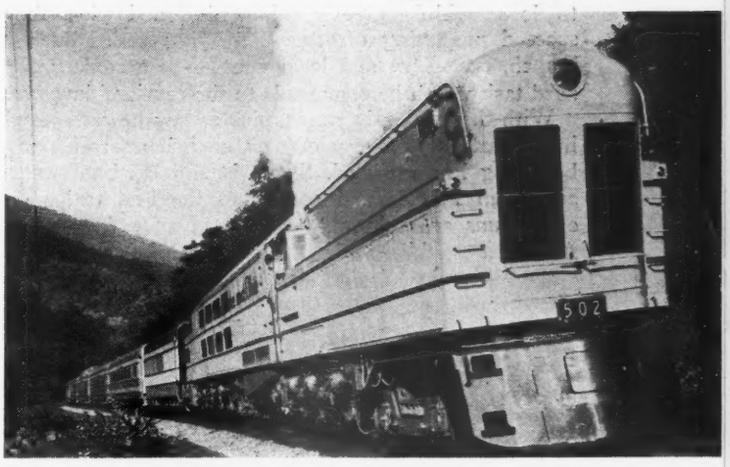
CAPTIONS READ TOP TO BOTTOM

The railroads won many friends at their popular fair in Chicago this year

Peerless for viewing scenic country, the dome car is appearing on a substantial number of roads having adequate clearances

Adventurous experimentation in locomotives and cars is at a high pitch

The train public-address system keeps passengers informed throughout the journey



use the now hackneyed phrase, of "pricing themselves out of the market," as a separate article in this issue points out. To date, however, the recent fare increases have not been operative sufficiently long to warrant many conclusions as to their effect on traffic or overall revenues.

Traffic statistics for the first half of the year compared with data for comparable periods in certain earlier years are tabulated herewith. These data show a decrease of 7.6 per cent in the number of passengers carried per road in the first half of 1948, compared with the corresponding portion of 1947; a drop of 11 per cent in passenger-miles; and a fall of 1 per cent in revenues. The average journey of each passenger also declined somewhat — to the extent of 3.8 per cent — but was still much greater than in the prewar year 1939. To offset these factors, the railroads were able to effect a fair reduction in the all-important operating unit of passenger-train miles — 2.1 per cent — and actually succeeded in increasing average train length to a small degree.

Coach travel declined relatively more than that in parlor and sleeping cars, but revenues therefrom declined less. Coach revenues in the first half of 1948 were down 1.7 per cent from the same half of 1947, while first-class revenues were down 3.1 per cent. The difference arose principally from the fact that revenue per coach passenger rose 12.3 per cent while rail revenue from first-class patrons went up only 9.7 per cent. The number of coach passengers declined 11.5 per cent, while Pullman passengers decreased 10.5 per cent. Passenger-miles of the coach category went down 12.5 per cent while those in Pullmans dropped 11.9 per cent.

Although the carriers had considerable difficulty in obtaining justifiable increases in rates for commutation service, the volume of such service decreased less than that of non-commutation business. The number of commutation passengers during the first half of 1948 declined 3.7 per cent from the comparable portion of 1947; passenger-miles declined 2.6 per cent; while, in contrast, revenues increased 15.9 per cent. While the average journey of other passengers declined somewhat, that of the daily business rider actually increased 1.1 per cent.

During the whole of 1947, revenue from commuta-

tion passengers actually increased 7 per cent over 1946, while, in contrast, non-commutation coach revenue dropped 21.2 per cent and first-class revenue fell 30.8 per cent. Travel of the first type probably was affected by the housing shortage, the growth of suburbs, and by continued inability to obtain automobiles. Much of the great falling off in non-commutation traffic was due to the virtual end of military and furlough travel by the beginning of 1947.

Higher Break-Even Point

During the depression passenger business was considered good when there was an average load of 150 passengers on a through train. A revenue of $3 a train-mile gave a fair margin over direct operating costs. Today, just the out-of-pocket costs of running passenger trains may average from $2 to $3 a train-mile. Full allocation of costs on the Interstate Commerce Commission formula brings up the break-even point to as high as $5 or $6 on many roads.

Fortunately, the load-factor on passenger trains was much greater in 1947 than in 1939—111 revenue passenger-miles per passenger train-mile, compared with 58. But it is clear that the roads must do everything possible to continue to maintain it at a high rate.

Defeatism is by no means the final attitude to 1948 passenger economics. President Ralph Budd of the Burlington, who pioneered the Diesel-powered streamliner in the depth of the depression, on a number of occasions recently has expressed the conviction that the railroads will find good, if not fancy, "pickings" in running fine trains at reasonable intervals between points where volume and distance justify. Their ability to do so will be greatly enhanced if and when they succeed in getting off the non-paying trains on the branch, secondary and local runs — a necessary but hard task which he commends to the carriers' lawyers.

With the decline in traffic, plus a slow upward trend in the rate of delivery of new equipment, trains are becoming less crowded. Space is still hard to get to and from Florida and sometimes the best trains on other runs are sold out well in advance. There are still faint rumblings about black markets in Pullman space — always a sign that a shortage is being rationed, unsuccessfully.

Equipment Situation

During the first 10 months of this year, the railroads received from builders a total of 712 passenger-train cars, of which 674 were passenger-carrying and 38 head-end. During the year 1947 the railroads installed a total of 858 new passenger-train cars, an increase of 78 per cent over the 481 installed in 1946. Rebuilt units, installed in 1947 and entered on the books as additions, totaled 13, compared with 38 so installed in 1946. The railroads owned 34,531 serviceable passenger-train cars at the close of July, 1948, compared with 33,880 on July 31, 1947.

The roads still have on order 2,001 units. Deliveries remain unfortunately slow and meager in relation to the carriers' urgent need of new equipment with which to wage their fight to hold or increase patronage.

The extent to which the railroads have committed themselves to the purchase of new cars is proof positive that they believe in the passenger business. The number of cars delivered or on order is not the only impressive feature of their program. The cost of the new equipment is equally striking. Due to the combination of very greatly increased material and labor costs and the addition of refinements in design and furnishings not hitherto employed, the average passenger coach now costs about double what it did in 1939.

The railroads have experienced no great difficulty recently in obtaining authority from the I.C.C. to raise their fares. In general the commission took the attitude that the new level of fares still would be "relatively low in relation to the railroads' increased expenses; various items in the travelers' budget, such as food and lodging; and the price of the private automobile, fuel, repairs and parking fees." Philosophically the public accepted the increases as inevitable, except in connection with commutation rates. Several state regulatory bodies, however, have proved to be less realistic.

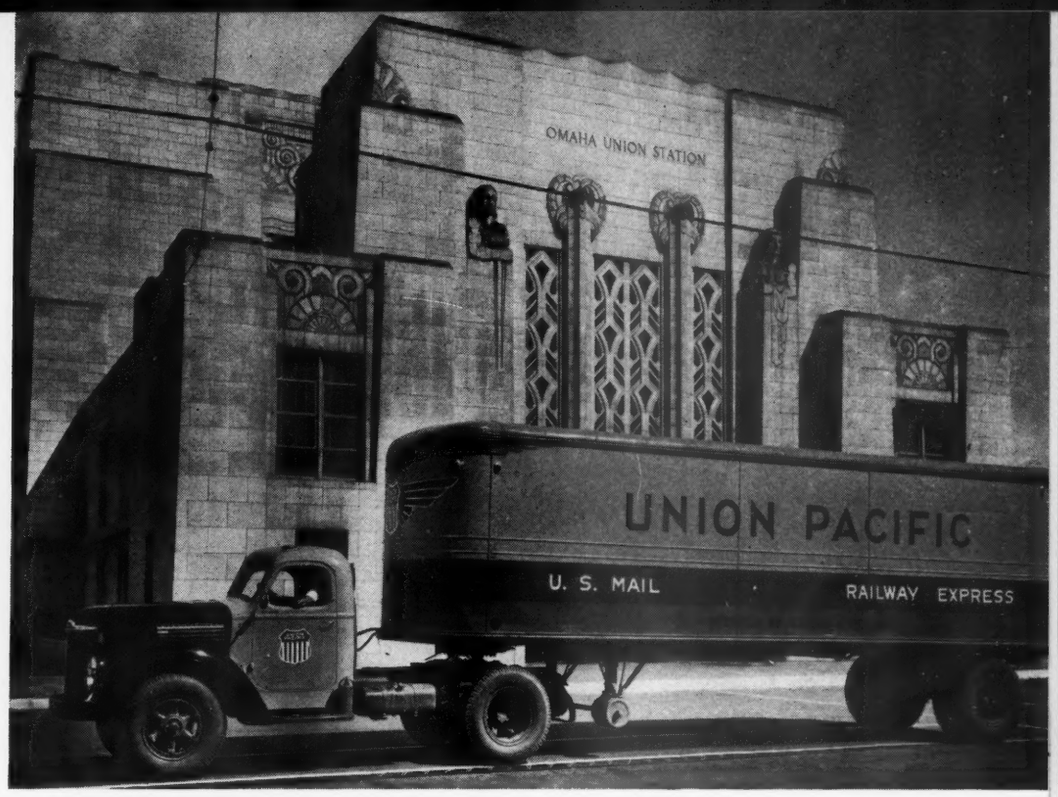
The western roads, in December, 1947, were authorized to increase their fares for one-way travel in Pullman cars from 3.3 cents a mile to 3.5 cents. This boost brought their first-class fares to a level previously authorized in other territories. Also, the intermediate-class fare for travel in tourist sleepers on the western roads went up from 2.7 cents a mile to 3 cents, with a corresponding increase in the round-trip tourist fare.

In February, 1948, 96 railroads (including 85 in the West and 11 in the South) were authorized to raise one-way coach fares by 13.63 per cent, or from 2.2 cents per mile to approximately 2.5 cents. The round-trip fares on these roads was increased to approximately 2.25 cents a mile in each direction. At the same time, the commission authorized these carriers to raise their minimum one-way coach fares from 10 to 15 cents and the western roads to increase their round-trip transcontinental fares from 1.716 cents per mile to 1.8316 cents. In its decision, the I.C.C. observed that the increases would "enable the carriers to acquire additional new equipment, improve their service to the public and meet the competition of private automobiles and other forms of transportation more successfully."

On July 7, 1948, the eastern roads were authorized, on five days' notice, to increase their first-class and coach fares to an extent estimated to yield some $61,000,000 in additional revenues. One-way coach fares were boosted from 2.5 cents to 3 cents a mile. One-way first-class fares were increased from 3.5 cents to 4 cents. Other increases were allowed on round-trip rates.

Boosts in Other Charges

After many months of hearings before the Illinois Commerce Commission, the Chicago roads engaged in commuter service were granted, in May, 1948, a permanent 20 per cent boost in commutation fares. In October of this year, the Chicago & North Western raised its commutation fares an additional 8 per cent by virtue of a court order which restrained the Illinois commission from blocking the move. Also a fare increase amounting to 68.4 per cent in some instances



The roads are dealing manfully with the problem of eliminating excessive head-end work at station stops. Substitute truck service is one of the answers

was granted the Chicago North Shore & Milwaukee, so that its revenues would be sufficient to pay a wage increase to its employees and thereby end a four-month strike.

In the East, intrastate commutation and school rates of the New York Central, Pennsylvania, Erie, Delaware & Hudson and the Baltimore & Ohio were raised by 10 per cent in January, 1948. In March, the Southern Pacific raised its commutation fares between San Francisco and suburban stations approximately 12½ per cent.

Higher space charges for so-called "luxury" Pullman accommodations went into effect on June 1, 1948. For example, the charge for a bedroom between Chicago and New York to be occupied by one person was raised from $13.95 to $14.75, and for two persons, from $15.50 to $17.05. Proportional increases were made for bedroom suites, compartments, drawing rooms and parlor car seats. The charge for a parlor car seat between Chicago and St. Louis, for example, was raised from $1.20 to $1.45.

Territorial Differences

It will have been noted that fare increases were not uniform in the three passenger districts. The new rates have not as yet been in effect sufficiently long to warrant any conclusion as to the relative wisdom displayed by roads in the lower or higher rated territories.

Despite higher fares in the Eastern district, passenger miles (non-commutation) therein declined but 11.6 per cent in the first six months of 1948 compared with the same period of 1947, while those in the lower-rated Western district declined 13.4 per cent and in the Southern district, 11.6. In the East passenger revenues declined 1.1 per cent, in the West, 2.7 per cent, and in the South, 4.6 per cent. Divided into coach and first-class, respectively, for the same comparative periods, passenger-miles showed the following percentage declines:

	Coach	First-Class
East	13.2	7.5
South	11.5	10.1
West	11.5	16.3

In revenues the respective districts showed the following percentage decreases:

	Coach	First-Class
East	0.3	2.6
South	5.1	2.4
West	1.8	3.8

The federal transportation tax of 15 per cent continues to handicap the railroads severely in competing with private transportation and travel abroad. Each necessary rise in their fares further increases the "take" of Uncle Sam.

What of Service?

In common with all services, as distinct from production, the railroads continued to suffer from an attitude of indifference among a minority of their employees, which had a disproportionate effect on the attitude of their patrons. Record employment and high availability of jobs undoubtedly played their parts in the situation. On the other hand, personal service has improved demonstrably since the end of the war. Courtesy and training programs of the railroads and the Pullman Company are increasingly paying off. There is evidence that more and more employees understand that their future lies, in a sense, in their own hands. It is significant that a well-known professional travel expert, whose criticism of railroad service often has been bitter and caustic, recently praised first-class service as "well-nigh perfect on most railroads."

Whether it is to make their passenger service the "show window of our transportation enterprise," to make profits *per se,* to reduce losses, to utilize fixed investment, or to win friends among shippers, those railroads which intend to stay in the business of passenger carriage are in deadly earnest. They know that accommodations and service must be constantly improved—else the customers will leave.

So it is that the fleet of streamliners—despite inadequate deliveries of equipment on order—has reached

the impressive total of 249 complete train sets, comprising about 2,625 regularly assigned passenger cars, as set forth in detail in a following article. Each day of the week these "beauties of the rails" pile up 174,568 train-miles. Each of the 41 individual railroads participating in the ownership of the streamliner fleet has thereby evinced its confidence in the passenger business. Although it is only 14 years since the first Diesel streamliner took to the rails, the breed has become so common that it is now the "norm" of American passenger service. These demonstrations of progress are entirely apart from the thousand or more new coaches, sleeping cars, diners and lounge units—equally luxurious and comfortable—which the roads have purchased in wholesale lots—like the 720-car program of the New York Central—with which to re-equip existing runs in whole or in part.

Nationwide Service Features

The railroads, as a joint enterprise, have in effect a number of innovations in service features, the progress of which is heartening. The Rail Travel Credit Agency, in which 47 railroads participate, now has 95,000 credit cards outstanding, of which about 80 per cent have been issued to 11,000 business firms, and 20 per cent to 12,000 individuals. About $1 million worth of business is being done every month on these cards; since the start of operation of the agency on April 1, 1947, to and including August 1, 1948, the cards accounted for $13 million in travel revenue.

Rail-auto service, re-established on a national basis effective July 1, 1947, has continued to develop. It is now available in more than 300 cities, and additional points are being added periodically. Results are "spotty," however, due to varying rates and services in each city and failure of some railroads to exploit the service in publicity and advertising.

Designed to compensate approved travel agencies and to stimulate their interest in rail travel for their patrons, the Rail Travel Promotion Agency has recognized 820 tourist agents and tour promoters for participation. In general, under the plan, agents are allowed 10 per cent on railroad tickets sold in connection with all-expense tours only. Carriers in Southern territory participate in the plan only from May 1 to November 30 of each year—their "off" season. In the year 1947, these tourist agencies produced $6,668,000 worth of railroad traffic. In the seven months from January 1 to July 31, 1948, they more than doubled this volume, selling about $6,700,000 worth of railroad business.

The railroads' efforts to reduce station delays to passenger trains have been more intensive in the past 12 months than ever before. There was considerable experimentation with the use of pallets, mechanical-handling equipment, conveyors and other devices to speed up the movement of head-end business. At least two roads—the Union Pacific and Southern Pacific—have established extensive truck service to handle mail and express between intermediate points to relieve passenger trains.

The drastic shift of volume in light packages from express to parcel post earlier this year, resulting from rate increases by the Railway Express Agency, has dealt a blow to station-stop speed-ups, terminal operations and train consists. Both rolling stock and terminals are designed to handle express and mail in normal proportions. Mail cannot be moved in the same way nor always in the same cars or trains as express, and the regulations pertaining to its station handling are more restrictive.

HOW THE RAILROADS' PASSENGER BUSINESS IS DOING

First Half of 1948
(Comparisons with corresponding periods of previous key years)

Revenue Passengers Carried (Thousands)

1948	326,282
1947	352,879
1944 (wartime peak)	442,341
1939	218,366
1920 (all-time peak)	595,771

Revenue Passenger-Miles (Thousands)

1948	19,979,106
1947	22,443,388
1944 (all-time peak)	47,037,512
1939	10,446,358

Passenger Revenues

1948	$452,887,917
1947	457,184,735
1944 (all-time peak)	879,997,821

Miles per Passenger per Road

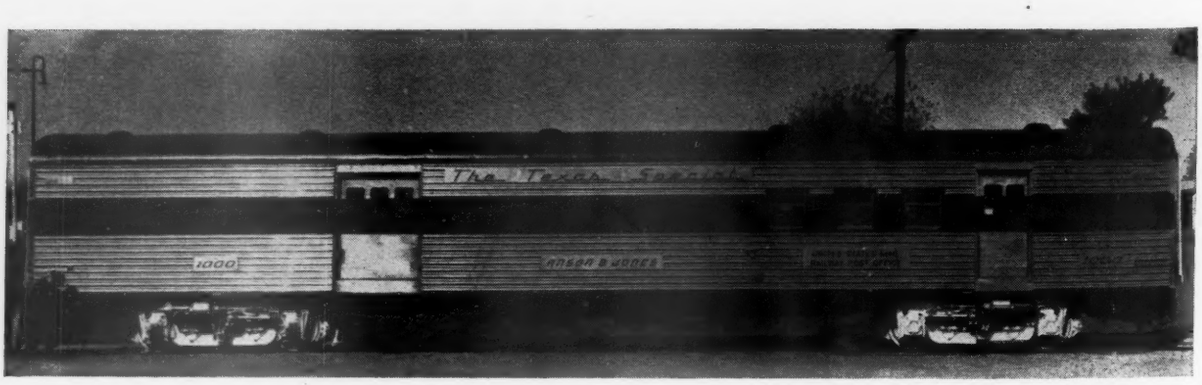
1948	61.2
1947	63.6
1944 (all-time peak)	106.3
1939	47.8
1929	38.80
1920	36.41

Passenger Train-Miles (Including Rail Car) (Thousands)

1948	201,411
1947	205,577
1944	235,331
1939	192,894
1929	278,834

Average Train Length (No. Cars)

1948	9.65
1947	9.53
1944	10.20
1939	7.95
1929	7.24
1920	6.33



Head-end cars for the new streamliners are as handsome as the passenger-carrying equipment. But rapid shifts of volume between express and mail may change well-planned consists

A TRAVEL AGENT LOOKS AT THE RAILS

By THOMAS J. DONOVAN
President, Cartan Travel Bureau, Inc., Chicago, Illinois

The Author

With very few exceptions, everyone wants to travel. Ask the next ten people you see where they would like to travel if they had $50, $100, or $200. The answers would be: visit Aunt Martha, Washington, Niagara Falls, New York, Colorado, Florida, etc. Every one—man, woman or child—dreams of taking a trip, getting away from home, seeing something new and different. Why don't more of them do it on railroads?

Today more people are traveling by air and bus than ever before in history, and passenger-miles on the railroads are higher than any except wartime years. On the other hand, private automobile pleasure travel has increased beyond all possible comparison with some 20 years ago.

All common carriers deplore this loss of potential business to automobile travel. Hence, the air lines advertise speed, comfort, free meals, and new, "startling" equipment. The air lines always have something new to offer, and, as a result, have increased their passenger-carrying mileage some 7,500 per cent in the last 20 years. The bus lines advertise accessibility of stations, "drive through the better parts of town," "enjoy a reclining seat as you comfortably see America," low fares, etc. The bus lines have increased their passenger-carrying miles some 175 per cent in the last 20 years. Both of these carriers have relatively much more modern equipment—considering all units operating—than do the railroads. In short, they offer a fine piece of "apple pie" and have increased their business at the expense of the railroads.

The author of this article has been connected with travel agencies for 20 years, prior to which he was in the Great Lakes steamship business. He is a member of the executive committee of the American Society of Travel Agents. The travel bureau he heads in 50 years old, having started its existence by selling packet boat tours on the Mississippi and tributaries. During the summer season it handles about 6,000 customers, and administers about 15 separate conducted tours by rail every week.

Mr. Donovan is enthusiastic about the equipment and service of what he calls "the best trains." He still has great difficulty getting space on them for his customers. What worries him are the other trains—the poorly filled ones. His criticism of them is admittedly "rough." But nevertheless they represent the attitude of a travel expert whose suggestions for filling trains deserve a hearing. His plea for commissions for all rail travel sold will meet with many and valid objections from passenger men. But his views are the views of a man who, after all, has the interest of common carriers fully at heart.

"Young" Rivals of the Railroads

It is true that the railroads have also increased their passenger business—and without subsidy—but much less than their competitors. What is the reason? Air lines and buses are "young," compared with the railroads. Therefore, they fight harder for business, offer more attractions and comforts, use better lobbyists, obtain subsidies in the form of free "roadbeds," "landing strips," operate less expensive terminals, use less expensive pieces of equipment, and are not burdened with archaic "featherbedding rules."

What the railroads want to do is put from 50 to 200 additional passengers every day on every train they now operate. Easily said, but how is it to be done?

To begin with, the roads should offer immediately all open-section Pullman accommodations at greatly reduced rail and Pullman fares to persuade people to use this type of space. As it now stands, everyone tries to buy room space on streamlined trains or, if he cannot afford Pullman travel at existing rates, rides coach. Also, the rail fare for a person occupying a lower or upper berth should be lower than that for one in a drawing room, bedroom, or roomette. The merit of a differential was proved by the Chicago & North Western-Union Pacific "Challenger," the Santa Fe "Scout," and the Rock Island-Southern Pacific "Californian" some ten years ago. Many of the so-called "tourist" Pullmans then used were better than many open-section Pullmans running today and presently requiring first-class rail and berth tickets.

For coach travel, a public address system similar to

Pleasure travel exists, says Travel Agent Donovan. The railroads' problem is to get it onto trains

that on the Southern Pacific's "Daylight" should be installed in every car to give passengers a travelog of interesting points along the right-of-way. A porter should be stationed in every coach to assist passengers on and off trains, to keep washrooms clean and supplied, and to tidy the car every hour or so in the manner of Pullman porters.

In my travels I've seen some of the most abominably dirty coaches so poorly lighted and ill-ventilated that it is a wonder anyone would ride in them. Such service defects have driven many to bus and automobile travel. A train paralleling a highway may carry only 100 passengers, when it could easily carry 300 to 400 "lost" passengers which it passes on the way.

The railroads make a bad mistake in advertising in large bold type only their best trains and finest equipment. They ought to point out, in addition, that comfortable accommodations are also available on other trains, and they ought to make such accommodations available at a lower rate. After having read about a fine reclining-seat coach train with club or observation car, one is chagrined and disappointed when he finds out that too many present-day coaches, and even Pullmans, are antiquated, poorly lighted, noisy and improperly maintained, while nevertheless requiring the same fare as he expected to pay for de luxe coach or Pullman accommodations.

Everyone believes the railroads are earnestly trying to improve their passenger carrying-equipment both in quality and service, but until such improvement is more completely accomplished, I believe that the barrel should be cleaned out from the bottom with improvement in the older equipment so as to reduce the wide spread between a brand new train and a "klunker"—as some coaches and Pullmans are referred to.

Passenger Relations with Travel Agents

Business on the railroads is like bananas; it runs in bunches. What every passenger executive wants to do is to smooth out the "peaks" and "valleys" as much as possible. But does he want to pay for it? Some railroads do, but they are in the minority.

If the railroads would say to travel bureaus, "Beginning tomorrow we will pay you 10 per cent on *every* rail ticket you can sell for us," it is my personal belief that some 2,500 regularly-established travel agents would increase their current sales of $10 million in pleasure business to some $50 to $60 million. It is true that some commissions would be paid on commercial business, but every business has to contend with "wrap-ups." The companies that manufacture life's essentials do not say to their distributors or retailers, "We cannot pay you your hire because we would sell it anyway." Rather they say, "Sell more and we will both make more money."

Individual tour companies can and will promote more group business than the railroads themselves because of the profit incentive and personal service.

The more attractive the price, and the more consistent it is with quality, the greater the field of selling. Automobile manufacturers have four different lines of cars to satisfy the demand and purse—why not railroads?

Railroads should offer group rates for pleasure travelers on tours to resort areas—one rate for 25 people, another for 100, and another for 200. This would encourage tour operators to promote business to a greater extent. Reduced fares should be offered for one month before and one month after peak seasons, for example, to Colorado. A tour selling for $130 in July and August might, with the cooperation of hotels, railroads, and other parties, be sold in May, September, and October for $100. It would mean more gross for everyone.

Over the years, steamship lines have allowed group organizers a fare reduction of one-half for their own ticket in handling 15 to 24 passengers, and one free passage for every 25 to 100 people, in addition to usual commissions. When operating on railroads, independent tour companies must pay full fare for escorts or conductors regardless of size of parties; they must pay for meals at regular rates. In short, they are granted no concessions or incentives to take a risk on real promotion. If tour companies could save $250 to $300 under regular rates on an escorted two weeks' western vacation, the saving on a party of 25 people would be $10 a person, which could be passed on to the customer without net loss to the common carrier.

The Rail Travel Promotion Agency (described elsewhere in this issue) is a forerunner to real development of railroad travel by travel agencies. Its possibilities of increasing railroad income can be tripled or quadrupled easily.

In conclusion, it is my opinion that the railroads generally are in a vicious circle. Much poor, antiquated and dirty equipment has forced prospective passengers off the rails and onto highways or into the air. Loss of patronage has made the operation of many trains unprofitable. There is a feeling among some railroad executives that, by raising fares, their income will increase. In contrast, I believe it would be more profitable in the end if certain rate reductions were introduced—for example, party fares, differential rates for ordinary coaches and open-section Pullman space, and especially attractive rates in "off" seasons to resort areas. In addition, 10 per cent or more commission to regularly established travel bureaus, on sales of *all* railroad tickets, and a pool of de luxe sleeping cars and coaches available for tour operation would effect a sizable and profitable increase in business. If 2,500 travel bureaus were paid commissions on all rail and Pullman tickets sold, it seems reasonable to expect they would be able to produce two to four extra passengers per office per day. At present, the handling of railroad business not in connection with all-expense tours is strictly a courtesy and is avoided as much as possible by travel agents.

The number of people receiving paid vacations today, compared with 20 years ago, is possibly 20 times greater. By far the great majority of these people have never taken a vacation trip by rail, and millions of people have never ridden overnight on a Pullman. Why not tap this wonderful reservoir of potential customers by offering a real attraction in price and service? The travel agents' creed is to get more people to travel more places, more often. The railroads can help accomplish this by offering a "finer piece of apple pie" than have the air lines or bus industry, and secure the business by adding a little whipped cream.

The Wabash and Union Pacific daily streamliner, "City of St. Louis"

BETTER TRAINS AND MORE OF 'EM

For the past three years the East Coast section of the "Champion" (above) has grossed an average of more than $7 a mile on its run over the Florida East Coast. The scenery is already there, but the railroads are making it easier to look at. The Burlington's "Twin Cities Zephyr" (below) carries five vista dome cars on its run along the upper Mississippi

If your passenger train travel wasn't more satisfactory in 1948 than it was the year before, it's probably because you did your riding on one of Lucius Beebe's "Mixed Trains Daily." Even deficit-making commuters shared in some of the improvements and learned that better equipment is forthcoming.

There are 119 different streamliners, made up with 249 complete sets of rolling stock, currently operating on the American railroads. These trains run a total of 174,568 miles each day of the week. Forty-one individual railroads participate in the ownership or operation of these trains. To make up the 249 sets of streamlined equipment, there are approximately 2,625 regularly-assigned passenger cars.

While it has been only 14 years since the first streamliner was placed in service, many already have been replaced with entirely new trains. Of 37 streamliners that were in service in 1939, at least 14 have been replaced completely by new and improved cars and locomotives.

In addition to the five score and nineteen "eye appeal" trains, countless standard trains offering fast, comfortable—if not always luxurious—service have benefitted by the "infiltration" of new equipment into their consists. There are an estimated 2,000 streamlined cars operating in other than streamlined trains. The standard trains also enjoyed schedule speed-ups and general refinements in the service they provide.

NINETEEN NEW STREAMLINERS . . .

The table of streamliners accompanying this article includes those trains which may be defined as "through, named trains made up wholly of new or rebuilt cars, embodying the latest innovations for passenger comfort, and which are powered by new or rebuilt locomotives." (All of the trains included are described by the owning roads as "streamliners," although it is likely that the uniform appearance of some is occasionally violated by the addition of extra cars to handle rush business: by the inclusion of standard cars or locomotives while streamlined units are in the shops; or, in some cases, by equipment placed in the regular consist to meet essential or advertised service pending receipt of new cars—usually cars on which a much earlier delivery was anticipated.) Trains fitting the above description added to the list since its publication in the Passenger Progress issue a year ago include 19 daily trains which average 21,753 train-miles each day.

On November 16, 1947, the Chicago, Burlington & Quincy placed the "Nebraska Zephyr" in daylight service between Chicago, Omaha and Lincoln, carrying reclining-seat coaches, a dinette coach, a full dining car and a parlor car. One week later, the Chicago, Rock Island & Pacific inaugurated the "Corn Belt Rocket," making an overnight run from Chicago to Omaha, and a daylight run from Omaha to Chicago. The consist includes reclining-seat coaches, a dining car, a full parlor car and a parlor-observation car. A lightweight 8-duplex, 6-roomette, 4-double bedroom car is included in the overnight run westbound.

On November 26 last year, the Wabash placed the "City of Kansas City" in service between St. Louis and Kansas City. This seven-car streamliner provides coach and parlor-observation service, and has, in addition to a full dining car, a buffet coach equipped with bar and luncheon facilities.

On December 12, the Seaboard Air Line, in conjunction with the Richmond, Fredericksburg & Potomac and the Pennsylvania, commenced operation of the "Silver Star," a coach and Pullman train from New York to Florida.

Nineteen new streamliners placed in service during the year run 21,753 luxury train-miles each day—Much new equipment has been placed in standard trains—More pre-war niceties of passenger travel have been restored, and some brand new ones added

The New '48's

The first new streamliner of the current year was the Chicago, Indianapolis & Louisville's "Thoroughbred," placed in Chicago-Louisville daylight service on February 15. This train carries reclining-seat coaches, a grill car and an observation-dining-parlor car. On March 1, the Reading placed the "Wall Street" in service on a 90-mi. commuter run between Philadelphia and Jersey City, made up with three reclining-seat coaches, a dining car, and a coach-fare club car. On November 14, the Reading inaugurated the "Schuylkill," a nine-car streamliner making two round trips weekdays and one round trip Sundays between Pottsville, Reading and Philadelphia.

The Chicago, Milwaukee, St. Paul & Pacific streamlined its "Chippewa" and added it to its fleet of Hiawatha trains effective August 1. The "Chippewa Hiawatha" operates between Chicago, Milwaukee and northern Michigan points with coaches and a dining-buffet "beaver-tail" parlor car.

The St. Louis-San Francisco cut running times drastically between St. Louis, Tulsa and Oklahoma City on May 14 when the "Meteor" was placed in service. Included in its 10-car make-up are reclining-chair cars, a chair-lounge-buffet car, a diner-lounge-observation car, and all-room sleeping cars.

"Deep in the Heart of Texas"

New streamliners to and from America's growing Southwest accounted for more than half of the streamliner miles gained in the past year. The Atchison, Topeka & Santa Fe started the parade with the "Texas Chief" on April 3, covering the 1,410 mi. between Chicago and Galveston—via Oklahoma City, Fort Worth and Houston—in 1,455 min. On May 16, the Missouri-Kansas-Texas and the St. Louis-San Francisco placed in service an entirely new "Texas Special," clipping several hours from the former running time between St. Louis, Fort Worth, Dallas, Austin and San Antonio. The Missouri Pacific and the Texas & Pacific inaugurated the streamlined "Texas

Eagle" on August 15. This train runs in two sections regularly, the West Texas section handling through coaches and sleeping cars for Dallas, Fort Worth and El Paso, and the South Texas section handling through cars for Houston, Galveston, Austin and San Antonio. On October 10, the Texas & Pacific commenced operations of the "Louisiana Eagle" between New Orleans, Dallas and Fort Worth, with a through room sleeping car and dining-lounge car for El Paso. On October 31, the Missouri Pacific began the "Valley Eagle" between Houston and Brownsville.

The Chesapeake & Ohio inaugurated streamliners on four Chicago-Grand Rapids schedules effective October 25. These trains include dining cars, tavern cars, and observation dome cars.

The Illinois Terminal entered the streamlined field on November 7 when it introduced the "City of Decatur," a three-car articulated electric train with reclining-seat coaches, parlor-observation facilities, and a dinette, operating between Decatur, Springfield and St. Louis. Two similar trains are scheduled to go in service between Peoria and St. Louis in the near future.

GENERAL SERVICE IMPROVEMENTS . . .

Early in 1948 the Santa Fe's "Super Chief" and "El Capitan" were placed on a daily basis instead of the former alternate-day schedule. With this change, the operation of "calendar" streamliners ended, with the exception of the three Chicago-Florida streamliners, each of which is operated every third day over one of three alternate routes, providing a daily service between Chicago, Jacksonville and Miami.

Effective June 1, operation of the "Georgian"—originally running from St. Louis to Atlanta over the Louisville & Nashville and the Nashville, Chattanooga & St. Louis—was changed so that the train now operates out of Chicago over the Chicago & Eastern Illinois to Evansville, thence L. & N. and N. C. & St. L. to Atlanta. Sleeping cars, including a roomette car, were added to the consist. St. Louis is served by a connection providing through coach and sleeping car service to Atlanta. Rearrangement of the train seems to have been justified by the gross passenger earnings per mile, which, over the L. & N. portion of the operation, averaged $4.87 in July, 1948, compared with $2.58 in July, 1947.

Quickened Schedules

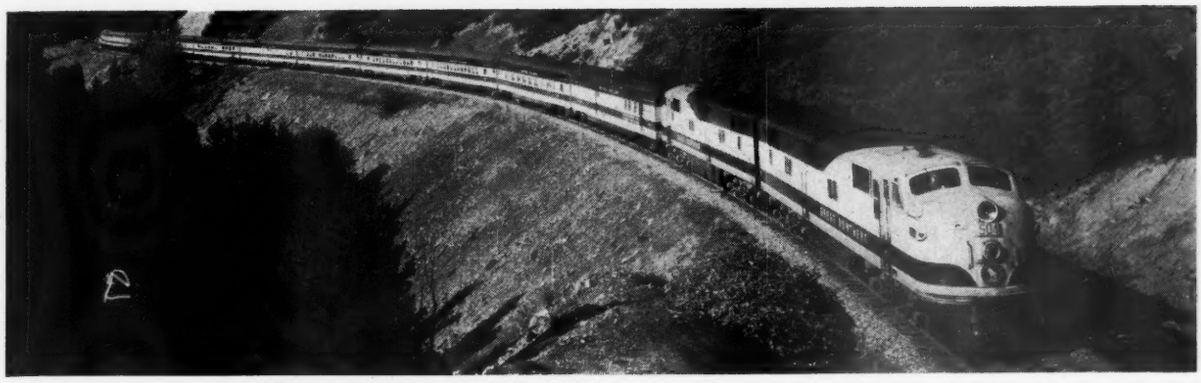
Practically all of the newly installed streamlined trains are on schedules much faster than those of their predecessor trains. In addition, many of the standard trains and earlier streamliners have been speeded up. The running time of the Pennsylvania's "Fort Pitt" between Pittsburgh and Chicago was reduced by 45 min. westbound and 1 hr. 25 min. eastbound. The day train between Pittsburgh and Detroit was speeded up 30 min. westbound and 35 min. eastbound. Train service from Chicago to points southeast was speeded up materially.

The Monon, coincident with inauguration of the "Thoroughbred" in February, cut 1 hr. 35 min. southbound and 24 min. northbound from the Chicago-Louisville schedules, and in September cut approximately 10 min. from the running time of day trains.

On April 4, the Union Pacific, the Great Northern and the Northern Pacific speeded up their trains between Seattle and Portland by as much as 30 min., effecting a total saving of more than two hours a day

(*Continued on page* 168)

Several roads have announced plans to renovate suburban coaches. The Rock Island has included forced-air ventilation, form-fitting seats and metal window frames in experimental modernization of a commuter coach



Success of the streamlined "Empire Builder" has led the Great Northern to authorize the purchase of 66 additional lightweight units, in addition to those already on order

THE NATION'S STREAMLINERS

Railway	No. of Trains	Name of Train	Normal Consist	Placed in Service	Operated Between	Equipment C—Coaches P—Parlor Cars S—Sleepers	Motive Power S—Steam E—Electric D—Diesel electric
A. T. & S. F.	5	Super Chief	12	2–22–38(a)	Chicago-Los Angeles	S	D
	6	Chief	14	2–22–38(a)	Chicago-Los Angeles	S	D
	5	El Capitan	14	2–22–38	Chicago-Los Angeles	C	D
	2	San Diegan	13	3–27–38	Los Angeles-San Diego(c)	C–P	D
	2	Kansas Cityan	12	4–17–38	Chicago-Oklahoma City	C–P	D
	2	Golden Gate	12	7– 1–38	Oakland-Bakersfield	C	D
	1	Tulsan	6	12–10–39	Kansas City-Tulsa	C–P	D
	6	Grand Canyon	13	6– 8–47	Chicago-Los Angeles	C–S	D
	3	Texas Chief	12	4– 3–48	Chicago-Galveston	C–S	D
A. C. L.	3(d)	Champion	16	12–1–39	New York-Miami	C	D
	1(e)	Dixie Flagler	7	12–17–40	Chicago-Miami(g)	C	S
	1(f)	City of Miami	8	12–18–40	Chicago-Miami(g)	C	D
	1(e)	South Wind	7	12–19–40	Chicago-Miami(g)	C	S
	4(d)	Champion (West Coast)	16	12–12–46	New York-St. Petersburg	C-S	D
B. & O.	1	Royal Blue	8	6–24–35	Washington-Jersey City	C–P	D
	2	Capitol Limited	14	11–23–38(a)	Washington-Chicago	S	D
	3	National Limited	12	6–28–40(a)	Washington-St. Louis	C–S	D
	2	Columbian	9	1–11–42	Washington-Chicago	C	D
	2	Cincinnatian	5	1–19–47	Baltimore–Cincinnati	C	S
B. & M.	1	Cheshire	3	4– 1–35	Boston-White River Jct.	C	D
C. of Ga.	1(f)	City of Miami	8	12–18–40	Chicago-Miami(g)	C	D
	1	Man-o-'War	5	6–24–47	Columbus-Atlanta(c)	C	D
	1	Nancy Hanks II	6	7–17–47	Savannah-Atlanta	C	D
C. of N. J.	1(f)	Royal Blue	8	6–24–35	Jersey City-Washington	C–P	D
	1(f)	Crusader	5	12–13–37	Jersey City-Philadelphia(c)	C	S
	1(f)	Wall Street	5	3–1–48	Jersey City-Philadelphia	C	S
C. & O.	2	Pere Marquette	6	8–10–46	Detroit-Grand Rapids (h)	C	D
	1	Pere Marquette	..	10–25–48	Chicago-Grand Rapids	C	D
	1	Pere Marquette	10	10–25–48	Chicago-Grand Rapids	C	D
C. & E. I.	1(e)	Dixie Flagler	7	12–17–40	Chicago-Miami(g)	C	D
	1	Meadowlark	4	10– 6–46	Chicago-Cypress	C	D
	1	Whippoorwill	7	11–10–46	Chicago-Evansville	C–P	D
	2(f)	Georgian	10	6– 1–48	Chicago-Atlanta	C–S	D
C. & N. W.	4(k)	City of Portland	13	6– 6–35	Chicago-Portland	C–S	D
	4(k)	City of Los Angeles	13	5–15–36	Chicago-Los Angeles	C–S	D
	4(k)	City of San Francisco	15	6–14–36	Chicago-Oakland	C–S	D
	2(k)	City of Denver	11	6–18–36	Chicago-Denver	C–S	D
	2	Twin Cities 400	13	9–24–39(a)	Chicago-Minneapolis	C–P	D
	1	Minnesota 400	5	1–12–42(a)	Wyeville-Mankota	C–P	D
	1	Peninsula 400	13	1–12–42	Chicago-Ishpeming	C–P	D
	1	Shoreland (Valley) 400	7	1–12–42	Chicago-Green Bay	C–P	D
	1	Capitol 400	7	1–12–42	Chicago-Madison	C–P	D
	2	City of Milwaukee 400	5	1–12–42	Chicago-Milwaukee (m)	C–P	D
C. B. & Q.	1	Pioneer Zephyr	4	11–11–34(n)	Fort Worth-Houston	C–P	D
	2	Twin Cities Zephyr	7	4–21–35(n)	Chicago-Minneapolis	C–P	D
	1	Mark Twain Zephyr	4	10–28–35	St. Louis-Burlington	C–P	D
	2	Denver Zephyr	12	5–31–36(n)	Chicago-Denver	C–P–S	D
	1	Sam Houston Zephyr	5	10– 1–36(n)	Houston-Fort Worth	C–P	D
	1	Silver Streak Zephyr	5	4–15–40	Lincoln-Kansas City	C–P	D
	2	Texas Zephyr	10	6– 2–40	Denver-Dallas	C–S	D
	2(k)	Zephyr Rocket	7	1–7–41	St. Louis-Minneapolis	C–P–S	D
	1	Zephyr 9902	4	6–15–41(n)	Chicago-Hannibal	C–P	D
	5(j)	Empire Builder	12	2–23–47	Chicago-Seattle	C–S	D
	6(p)	North Coast Limited	16	9–26–47(a)	Chicago-Seattle	C–S	D
	2	Nebraska Zephyr	8	11–16–47	Lincoln-Chicago	C–P	D
C. I. & L.	1	Hoosier	6	8–17–47(a)	Chicago-Indianapolis	C–P	D
	1	Tippecanoe	6	11–15–47(a)	Chicago-Indianapolis	C–P	D
	2	Thoroughbred	5	2–15–48(a)	Chicago-Louisville	C–P	D

Explanatory footnotes appear on page 169

in the aggregate running time of trains between these two cities.

In December, 1947, the Santa Fe cut 1 hr. 29 min. from the westbound run of the "Chief," 1 hr. from the eastbound run, and 29 min. from the westbound "Grand Canyon."

During the past year the Lehigh Valley Dieselized all of its main-line passenger runs and effected reductions up to 45 min. in the running times of the "Black Diamond," the "John Wilkes" and the "Asa Packer."

In January, the Rock Island and the Southern Pacific established the "Golden State" as an extra-fare train between Chicago and Los Angeles, and, at the same time, cut 4 hr. 15 min. from the westbound and 3 hr. 15 min. from the eastbound schedule.

New Equipment in Many Trains

The addition of new equipment to existing trains has been on such an extensive basis as to make any detail listing thereof impractical. Entire streamliners have been replaced with new equipment, and the equipment thus displaced has been assigned to secondary runs, so that most main-line trains and many branch-line trains now carry equipment that is at least

The Nation's Streamliners (Cont.)

Railway	No. of Trains	Name of Train	Normal Service	Placed in Service	Operated Between	Equipment C—Coaches P—Parlor Cars S—Sleepers	Motive Power S—Steam E—Electric D—Diesel-electric
C. M. St. P. & P.	2	Afternoon Hiawatha	12	5-29-35	Chicago-Minneapolis	C-P	D
	2	Morning Hiawatha	12	1-21-39	Chicago-Minneapolis	C-P	D
	2	Midwest Hiawatha	10	12-11-40	Chicago-Omaha	C-P	D
	6	Olympian Hiawatha	12	6-29-47	Chicago-Seattle	C-S	D
	2	Chippewa Hiawatha	6	8-1-48(a)	Chicago-Ontonagon	C-P	S
C. N. S. & M.	2	Electroliner	4	2- 9-41	Chicago-Milwaukee(q)	C	E
C. R. I. & P.	1	Peoria Rocket	5	9-19-37	Chicago-Peoria(c)	C-P	D
	1	Des Moines Rocket	5	9-26-37	Chicago-Des Moines	C-P	D
	2	Texas Rocket	4	11-15-38	Kansas City-Dallas	C-P	D
	2	Rocky Mountain Rocket	10	11-12-39	Chicago-Denver	C-P-S	D
	2	Choctaw Rocket	5	11-17-40	Memphis-Amarillo	C-P-S	D
	2(k)	Zephyr Rocket	7	1- 7-41	St. Louis-Minneapolis	C-P-S	D
	3	Twin Star Rocket	7	1-14-45	Minneapolis-Houston	C-P-S	D
	5(d)	Golden State	13	2-13-47	Chicago-Los Angeles	C-S	D
	2	Corn Belt Rocket	8	11-23-47	Chicago-Omaha	C-P-S(s)	D
F. E. C.	3(d)	Champion	16	12- 1-39	New York-Miami	C	D
	1	Dixie Flagler	7	12-17-40	Chicago-Miami(g)	C	D
	1(f)	City of Miami	8	12-18-40	Chicago-Miami(g)	C	D
	1(e)	South Wind	7	12-19-40	Chicago-Miami(g)	C	D
G. N.	5(j)	Empire Builder	12	2-23-47	Chicago-Seattle	C-S	D-E
G. M. & O.	1	Abraham Lincoln	12	7- 1-35	Chicago-St. Louis	C-P-S	D
	3	Rebel	4	7- 1-35	St. Louis-New Orleans	C-S	D
	1	Ann Rutledge	12	7-26-37	Chicago-St. Louis	C-P	D
	2	Gulf Coast Rebel	10	10-29-40	St. Louis-Mobile	C-S	D
I. C.	1	Green Diamond	5	5-17-36	Chicago-St. Louis	C-P	D
	1	City of Miami	8	12-18-40	Chicago-Miami(g)	C	D
	2	Panama Limited	11	5- 3-42(a)	Chicago-New Orleans	S	D
	1	Daylight	5	9-29-46(a)	Chicago-St. Louis	C-P	D
	1	Land-o'-Corn	5	2-12-47(a)	Chicago-Waterloo	C	D
	2	City of New Orleans	14	4-27-47	Chicago-New Orleans	C	D
	1	City of New Orleans	4	4-27-47	Louisville-Fulton	C	S
	1	Miss Lou	5	4-27-47	New Orleans-Jackson	C	D
I. T.	1	City of Decatur	3	11- 7-48	Decatur-St. Louis	C	E
K. C. S.-L. & A.	3	Southern Belle	9	9- 1-40	Kansas City-New Orleans	C-S	D
L. V.	1	John Wilkes	7	6- 4-39	New York-Pittston	C-P	E-D
L. & N.	1(e)	Dixie Flagler	7	12-17-40	Chicago-Miami(g)	C	S
	1(e)	South Wind	7	12-19-40	Chicago-Miami(g)	C	S
	2	Humming Bird	7	11-17-46	Cincinnati-New Orleans	C-S	D
	2	Georgian	10	6- 1-48	Chicago-Atlanta	C-S	D
M.-K.-T.	3(k)	Texas Special	13	5-16-48	St. Louis-San Antonio	C-S	D
M. P.	2	Missouri River Eagle	6	3-10-40	St. Louis-Kansas City	C-P	D
	1	Delta Eagle	2	5-11-41	Memphis-Tallulah	C	D
	2	Colorado Eagle	7	6-21-42	St. Louis-Denver	C-S	D
	2	West Texas Eagle	11	8-15-48	St. Louis-Ft. Worth	C-S	D
	2	South Texas Eagle	14	8-15-48	St. Louis-San Antonio	C-S	D
	2	Valley Eagle	4	10-31-48	Houston-Brownsville	C	D
N. C. & St. L.	1(e)	Dixie Flagler	7	12-17-40	Chicago-Miami(g)	C	S
	1	City of Memphis	6	5-17-47	Memphis-Nashville	C	S
	2(f)	Georgian	10	6- 1-48	Chicago-Atlanta	C-S	D
N. Y. C.	2	Mercury	15	7-15-36	Cleveland-Detroit-Chicago	C-P	S
	2	20th Century Limited	17	6-15-38(a)	New York-Chicago	S	E-D
	2	Pacemaker	16	7-28-39	New York-Chicago	C	E-D
	2	Empire State Express	16	12- 7-41(a)	New York-Cleveland	C-P	E-D-S
	1	James Whitcomb Riley	10	4-14-48(a)	Chicago-Cincinnati	C	S
N. Y. N. H. & H.	(This road operates a number of fast, named trains betwen New York and Boston, Mass., the make-ups of which include a predominance of new streamlined coaches, diners, grill cars, and parlor cars, and which are powered by streamlined electric, Diesel and steam locomotives.)						
N. & W.	3(e)	Tennessean	12	5-17-41	Washington-Memphis	C-S	S
	2	Powhatan Arrow	7	4-28-46	Cincinnati-Norfolk	C	S
N. P.	6(p)	North Coast Limited	16	9-26-47(a)	Chicago-Seattle	C-S	D

Explanatory footnotes appear on following page.

air-conditioned, if not de luxe in appointments. For example, during the past year the Pennsylvania's "Trail Blazer" and "Jeffersonian"—streamlined since their inauguration—received all new equipment. The coaches which formerly operated in these trains were spread over the system in other trains.

The New York Central's postwar program for the construction of 720 new main-line passenger cars—enough to completely re-equip 28 of its principal trains—was more than halfway complete by mid-October.

The Great Northern, encouraged by the amount of traffic developed after 20-months' operation of the streamlined "Empire Builder," authorized on October 27 the purchase of 66 additional lightweight cars.

The New York, New Haven & Hartford installed "two-and-one" parlor cars on its "Merchants Limited" between New York and Boston. These cars seat two passengers on one side of the aisle and one on the other. The Gulf, Mobile & Ohio is experimenting with a similar parlor car, taking a poll of its users to determine its travel appeal.

Recreation or "family coaches" were placed in service on two roads. The Pennsylvania introduced such cars on the all-coach "Jeffersonian" between St. Louis and New York, and the Chesapeake & Ohio on the

The Nation's Streamliners (Cont.)

Railway	No. of Trains	Name of Train	Normal Consist	Placed in Service	Operated Between	Equipment C—Coaches P—Parlor Cars S—Sleepers	Motive Power S—Steam E—Electric D—Diesel-electric
P. R. R.	2	Broadway Limited	15	6-15-38(a)	New York-Chicago	S	E-D
	3(d)	Silver Meteor	17	2- 2-39	New York-Miami-St. Petersburg	C-S	E
	2	Trail Blazer	10	7-28-39	New York-Chicago	C	E-D
	2	Pittsburgher	10	9-24-39(a)	New York-Pittsburgh	S	E-S
	3(d)	Champion	16	12- 1-39	New York-Miami	C	E
	1	South Wind	7	12-19-40	Chicago-Miami	C	S
	3(d)	Southerner	8	3-31-41	New-York-New Orleans	C	F
	3	Jeffersonian	13	4-27-41	New York-St. Louis	C	E-D
	4(d)	Champion (West Coast)	12	12-12-46	New York-St. Petersburg	C-S	E
	3(d)	Silver Comet	11	5-18-47	New York-Birmingham	C-S	E
	3(d)	Silver Star	14	12-12-47	New York-Miami	C-S	E
Reading	1(f)	Royal Blue	8	6-24-35	Jersey City-Washington	C-P	D
	1	Crusader	5	12-13-37	Jersey City-Philadelphia(c)	C	S
	1	Wall Street	5	3- 1-48	Jersey City-Philadelphia	C	S
	1	Schuykill	9	11-14-48	Pottsville-Philadelphia (c)	C	S
R. F. & P.	3(d)	Silver Meteor	17	2- 2-39	New York-Miami-St. Petersburg	C-S	S
	3(d)	Champion	16	12- 1-39	New York-Miami	C	S
	4(d)	Champion (West Coast)	16	12-12-46	New York-St. Petersburg	C-S	S
	3(d)	Silver Comet	17	5-18-47	New York-Birmingham	C-S	S
	3(d)	Silver Star	17	12-12-47	New York-Miami	C-S	S
S. L.-S. F.	2	Firefly	7	12-10-40	Kansas City-Oklahoma City	C-P	S
	2	Meteor	10	5-14-48	St. Louis-Oklahoma City	C-S	D
	3(k)	Texas Special	13	5-16-48	St. Louis-San Antonio	C-S	D
S. A. L.	3(d)	Silver Meteor	17	2- 2-39	New York-Miami-St. Petersburg	C-S	D
	3(d)	Silver Comet	17	5-18-47	New York-Birmingham	C-S	D
	3(d)	Silver Star	17	12-12-47	New York-Miami	C-S	D
Southern	3(d)	Southerner	8	3-31-41	New York-New Orleans	C	D
	3	Tennessean	12	5-17-41	Washington-Memphis	C-S	D
S. P.	4(k)	City of San Francisco	14	6-14-36	Oakland-Chicago	C-S	D
	2	Morning Daylight	19	3-21-37	San Francisco–Los Angeles	C-P	S
	12	Sunbeam	6	9-19-37	Houston-Dallas	C-P	S
	1	Hustler	6	9-19-37	Houston-Dallas	C-P	S
	2	Noon Daylight	15	3-30-40	San Francisco-Los Angeles	C-P	S
	2	Lark	20	5- 1-41(a)	San Francisco-Los Angeles	S	S
	2	San Joaquin Daylight	14	7- 4-41	Oakland-Los Angeles	C	S
	1	Sacramento Daylight	5	6- 2-46	Sacramento-Los Angeles	C	S
	5(d)	Golden State	13	2-13-47	Los Angeles-Chicago	C-S	D
S. P. & S.	1	Empire Builder	7	2-23-47	Portland-Chicago	C-S	D
T. & P.	2	West Texas Eagle	11	8-15-48	St. Louis-Fort Worth	C-S	D
	2	South Texas Eagle	14	8-15-48	St. Louis-San Antonio	C-S	D
	2	Louisiana Eagle	7	10-10-48	New Orleans-Fort Worth	C-S	S
U. P.	4(k)	City of Portland	13	6- 6-35	Chicago-Portland	C-S	D
	4(k)	City of Los Angeles	13	5-15-36	Chicago-Los Angeles	C-S	D
	4(k)	City of San Francisco	15	6-14-36	Chicago-San Francisco	C-S	D
	2(k)	City of Denver	11	6-18-36	Chicago-Denver	C-S	D
	3(k)	City of St. Louis	12	6- 2-46	St. Louis-Cheyenne(b)	C-S	D
Wabash	3(k)	City of St. Louis	11	6- 2-46	St. Louis-Cheyenne(b)	C-S	D
	1	City of Kansas City	7	11-26-47	St. Louis-Kansas City	C-P	D

(a) Date existing train was streamlined
(b) Train is divided at Cheyenne with through cars operating to Los Angeles, Oakland and Portland.
(c) Each train makes two round trips daily
(d) Ownership of equipment, except motive power, shared with roads over which train is jointly operated.
(e) Equipment, except motive power, owned by road over which train is jointly operated
(f) Equipment, including motive power, owned by road with which train is jointly operated
(g) Operates every third day
(h) Each train makes 1½ round trips weekdays—2 round trips Sundays and holidays
(j) One train owned by C. B. & Q.—4 trains owned by G. N.
(k) Ownership of equipment shared with other roads over which train is jointly operated
(m) These 2 trains make a total of 3-round trips, running one round trip as the "Commuter 400"
(n) Date streamliner was first placed in service, rather than date on which assigned to present run.
(o) Operates eastbound only
(p) Seven cars owned by C. B. & Q.—balance by N. P.
(q) Each train makes 2½ round trips daily
(r) Combined with "San Joaquin Daylight" between Lathrop and Los Angeles
(s) Sleeping car operates Northbound only

"George Washington" between Louisville and Washington. These cars include motion picture theaters and play space for children.

The Minneapolis & St. Louis placed six new stainless steel coaches in service, replacing old equipment.

The Baltimore & Ohio extended its Washington-Oklahoma City sleeper—operating west of St. Louis on the Frisco's "Meteor," to operate through from Jersey City, and placed new 14-roomette, 4-double bedroom lightweight sleepers in this and other through Southwestern sleeping car lines.

Four railroads installed radio-telephones on their leading passenger trains, permitting passengers to communicate in transit with any point served by the Bell telephone system. Trains featuring this service are as follows:

N.Y.N.H.&H.	"Merchants Limited"	New York-Boston
"	"Yankee Clipper"	New York-Boston
N.Y.C.	"20th Century Limited"	New York-Buffalo
P.R.R.	"Congressional"	New York-Washington
"	"Potomac"	Washington-New York*
"	"Legislator"	New York-Washington*
B.&O.	"Royal Blue"	Jersey City-Washington

*in the direction indicated only

The C. & O. proposes to offer train-telephone service to passengers on all its principal trains between Orange, Va., and Cincinnati.

Capitalizing on Scenery

Several railroads have made it easier for passengers to view the scenery along their lines. Most notable of the achievements in this direction was the inauguration of glass-topped "dome" cars on several trains, as follows:

C.B.&Q.	"Morning Zephyr"	Chicago-Minneapolis
"	"Afternoon Zephyr"	Chicago-Minneapolis
C.B.&Q.-D.&R.G.W.-W.P.	"Exposition Flyer"	Chicago-Oakland
C.&O.	"Pere Marquette"	Chicago-Muskegon
"	"Pere Marquette"	Chicago-Grand Rapids
M.P.	"Colorado Eagle"	St. Louis-Denver

The Milwaukee placed "skytop" observation-lounge cars in service on the "Twin Cities Hiawatha," and in the very near future will have "skytop" lounge-bedroom cars in service on the transcontinental "Olympian Hiawatha." These cars feature a glassed-in area affording an increased scope of view from regular floor-level seats. The New York Central introduced a "lookout" lounge-observation on its new "Twentieth Century Limiteds." The observation section is raised two steps above the conventional floor level, and has extra high windows, offering an enlarged vista.

The financing of trips by rail has been simplified by establishment of the Rail Traveloan Service, whereby passengers using most of the principal railroads may make application at the ticket offices for loans to finance ticket purchases, with payments in monthly sums over a period of 3 to 12 months, or longer.

BETTER RIDES FOR DAILY RIDERS . . .

While it is a generally accepted fact that the operation of commuter trains is a deficit business, nevertheless, several roads plan to improve suburban service.

The Central of New Jersey went to its passengers with questionnaires to find out their preferences with respect to color combinations, upholstery fabrics and seat arrangements. Results of the rider poll are guiding the renovation of a number of coaches. Air-conditioned coaches went into service between Jersey City, Raritan and Bay Head Junction, providing service to more than 500 daily commuters who have formed clubs to pay the cost of installation and maintenance of the air conditioning. Six Diesels are already in commuter service. Twelve more are on order for assignment to suburban trains. It is anticipated that 50 per cent of all Jersey Central passengers using the Jersey City-Raritan service, and 80 per cent using the Bay Head Junction trains, will ride behind Diesels upon completion of the present motive power program.

The Long Island is receiving 50 new air-conditioned double-deck coaches at the rate of about two a week. They are multiple-unit electric cars, seating 132 passengers each, and are equipped with an inter-car public address system. Other improvements which the Long Island is making, at a total cost of over $18 million, include the following:

Improved car springs
New seat coverings
Metal window sashes and safety glass
Centralized door controls
Car body insulation
Air circulating fans
Six new electrical substations
Four new passenger stations
Platforms extended and resurfaced at 20 stations
Rehabilitation and painting of 38 stations
Stone ballast in place of cinder ballast on 54 mi. of track
Cooling fans at Pennsylvania station, New York
Rescheduling of trains to provide additional seating

The New York Central placed orders last May for 30 air-conditioned multiple-unit suburban coaches, and in September increased the order to 100. A half million dollar track-layout improvement on the Harlem division has permitted addition of 10 daily rush-hour trains. New lighting, furnishing 60 per cent more illumination, has been installed on a number of commuter coaches.

The Chicago & North Western has begun a program of refurbishing 100 suburban coaches at a cost of $7,000 per car. The Burlington is modernizing 85 suburban coaches. The rebuilt cars will be air-cooled and contain a number of interior refinements. The Rock Island is modernizing its suburban cars. An experimental coach, rebuilt from a standard car, features forced-air ventilation, form-fitting seats of plastic composition, aluminum window frames and roller-bearing vestibule doors.

The Reading is due to receive eight multiple-unit motor cars and eight trailers to augment its suburban service at Philadelphia, providing more seats. The Pennsylvania recently rearranged its Philadelphia suburban service to provide seats for several thousand more passengers daily. To accomplish this end, electric locomotives and regular coaches are being used on some of the rush-hour trains in order to make additional multiple-unit electric cars available to provide extra space on other trains.

The New York, Susquehanna & Western and the Chicago & North Western set up arrangements whereby commuters may obtain and pay for their commutation tickets by mail. The Delaware, Lackawanna & Western and the Boston & Maine had previously set up such a service.

THE QUALITY OF THE RAILROADS' PRODUCT

A Discussion of the "little things" in passenger service

By CLAUDE E. PETERSON,
Vice-President (System Passenger Traffic), Southern Pacific

Claude E. Peterson

Our business is that of carrying people from here to there, and our merchandise — transportation — has to suit a lot of variables in human characteristics. Our product, basically, is personal service and the human element enters into it to a tremendous degree, both in providing the service and among those who receive it.

I'd like to give my definition of the word "quality" as related to our merchandise. It is that kind of service *that makes people more willing to pay the price we charge*. At a time when passenger fares have been raised, and may go still higher, and when we may be pricing ourselves out of the market, particularly when there is growing resistance to high prices and when money is getting tighter, this subject becomes especially important.

What are the basic factors in high quality railroad merchandise? Let's list some of them, in no particular order of importance. The main factors are good, modern equipment; on-time performance; courteous, interested employees; ease of dealing with the railroad; minimum of errors; convenience of service; and a host of other items which may be grouped under the heading of precision and smartness of service.

What are the obstacles and handicaps in providing high quality service? There are many. On the impersonal side we have those cost pressures requiring economy of operation which work against convenience and precision of operation. We have the problem of giving travelers what they want and need and at the same time of conserving car- and train-miles. The two elements are not always compatible.

The other major difficulty is the size of the human-element factor in manufacturing, selling and delivering our merchandise, involving all the variables of human nature and human attitudes. There are involved so many groups of employees who may not come in direct contact with the public, yet whose good work is essential to high quality. Many of them are not under passenger-department control or supervision; and the same holds true to an extent of many employees who do come in direct contact with our patrons. Employees involved in providing our merchandise are scattered over many miles of territory. It is difficult to reach them for training and instruction and education.

The job of the air lines seems simpler. Aside from ticket clerks and gatemen, virtually the only contact travelers by air have with an air line employee is with a woman stewardess — young, smart, and attractive. One plane shuttling back and forth can carry a lot of passengers, and all these passengers receive their principal impression of service from a few girls who have a good combination of attractiveness and intelligence. And because of these qualities, most of them get married and leave the service before they become old and cranky. It's a lot easier to train a hundred girls whose home terminals are main operating centers and who have good education than it is to train thousands of men scattered around the country and who have varying backgrounds.

Modern Equipment Taken for Granted

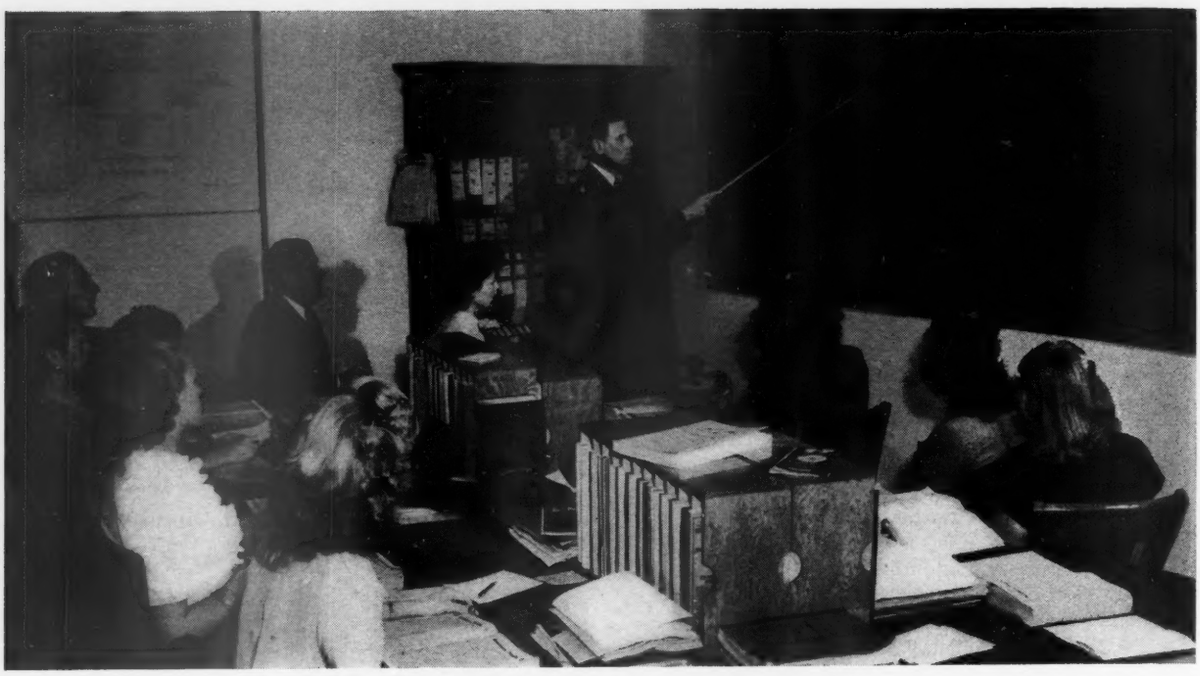
Every passenger officer knows that the public wants fine modern cars, and I assume that every passenger officer wants as much good equipment for his railroad as he can get. I assume further that the managements of those railroads that have decided that passenger business is worth having possess the fortitude and the financial courage to order as much new equipment of various types as their railroads need, or at least as much as their financial strength permits. The next few years will be critical in this respect. If we don't modernize our passenger-carrying facilities as quickly as we can, we will be left behind by our competitors — the plane and bus — and it will be too late to catch up.

With the factor of modern equipment accounted for, the main requisite remaining for good quality in our merchandise lies in the human element. Looking at the problem coldly and critically, it seems to me that the solution of many of our personnel problems lies in (a) good planning, (b) good training, and (c) making it easier for employees to give good, error-free service.

Sale and Handling of Tickets

Take the selling of tickets. Here are often involved slowness, delays and mistakes in ticket offices, causing confusion to gatemen and conductors, and a constant source of irritation to passenger. The air lines provide a quickly prepared coupon ticket for transportation from coast to coast. We railroaders should be able to work out a similar convenient ticket form. I know the difficulties and I know our problem is tremendously more complicated, but I am sure it can be done without

Adapted from an address delivered at a meeting of the American Association of Passenger Traffic Officers at Estes Park, Colo., on September 14.



Good training of employees is a key to better quality of railroad passenger service

endangering the validity of interline accounting. The subject should be attacked by our accounting officers with fresh, unbiased minds and with a real effort to get the desired result. Simplification would speed up operations in ticket offices, where employees are blamed by the public for delays; it would reduce errors; and it would relieve conductors, perhaps giving them more time and opportunity to interest themselves in the welfare of passengers.

Service at ticket offices frequently creates an unfavorable impression. With increased costs, we have had to be economical in staffing. The amount of detail involved in selling tickets, plus the difficulty of getting space, plus phone congestion, result in lines of customers at ticket windows. Some travelers say, "I travel by air because it's too hard to do business with the railroads."

The "will-call" window system is a means of remedying the unfavorable conditions at ticket offices. Patrons can place their orders by phone, permitting tickets to be made up in advance, under more favorable conditions and with better spreading of the work. All the customer has to do is to come later to the "will-call" window, pick up the tickets that are waiting for him and pay for them. One by-product of "will-call" is that it gives more opportunity to place at ticket windows those ticket clerks who are good at public contact, putting the others back of the scenes to make up tickets.

Ticket Office Accounting

Since the manpower at ticket offices has a direct bearing on ticket office service, the modernization and improvement of our ticket office accounting procedure might give some relief. As it is, we are likely to have one man in the back room working on accounts and accounting matters for every two men at the ticket counter. Simplification of ticket-office accounting work would release men for ticket selling and servicing, give more time to do real selling and to attend to patrons.

Better correlation of the actions of the operating and passenger departments should improve the quality of our product. Take, for example, the reporting of arrival times. The public frequently is given inaccurate information. After being told a train will arrive at a certain time, no one enjoys waiting an hour after going to the station. The victim is apt to believe that the quality of railroad merchandise is on the shoddy side.

The cleaning of equipment offers a specific case for a better correlation of effort. Our traffic forces, having the responsibility for sales, are more concerned than the operating forces with getting 100 per cent cleaning jobs. Station passenger agents should check equipment at initial stations to uncover slip-ups and have them remedied before the cars are open to the public.

"The Little Things"

In service there are numerous "little things" which, because they rank big in the customers' opinions of us, merit serious attention ahead of time. In too many cases the gates are not opened until a few minutes before trains leave. As a result, passengers "mill around," then crowd on trains in a last-minute rush. The situation is particularly irritating these days because of early check-out rules at hotels and a cab situation which forces people to start for the station well ahead of time.

The handling of hand baggage is another matter requiring energetic study. The systems generally in use are antiquated. Generally, baggage accompanying the passenger is unloaded off the Pullmans, identified,

then loaded into carts or vans. After reaching the taxi stand, passengers wait an appreciable length of time for "redcaps" to appear with the carts or vans, after which there is a mad scramble to get one's luggage and get it close to a taxi. No matter how good a trip the passenger might have had on a streamliner across the country, the pleasure of his trip is considerably blunted after his struggle to get his various grips into a cab.

On the Southern Pacific we have inaugurated a number of improvements in luggage handling, making it possible for passengers on most of our long-distance trains to get off and walk directly to the taxi stand, where their baggage is delivered straight from their accommodations. Other improvements have been made, but I freely concede that we have a long way yet to go.

We ought to pay more attention to coach passengers and re-educate our train-service employees to respect them. Trainmen are too prone to consider them second or third-class people, a condition which is reflected in the complaint letters we get regarding experiences on other railroads as well as our own. Coach revenues constitute a very large portion of our revenues and, of course, our good coach trains are among the most profitable runs on the road.

Handling of Complaints

The handling of complaints presents an opportunity not only to mollify patrons but also to make friends of them. Also, they are a source of information which can lead directly to the improvement of the service itself. On the Southern Pacific, we concentrate all our complaint letters and reports in one book at the end of each month and require every general passenger officer to read them. Every letter of complaint has to be answered by an officer, personally.

Things go wrong in the best-run businesses, but these unfortunate occurrences need not create a bad impression if we take the pains to make simple, straight forward explanations. For example, on occasion we have had to put in the consist of our de luxe trains substitute cars not up to the standard our advertising has led the public to expect. In such cases we have distributed cards of explanation to the passengers in these cars, and the results have been productive.

Another avenue for improved quality of service lies in standardization. I do not refer to rates, which must be determined by the traffic conditions in various areas, but particularly to equipment. Every railroad has its own ideas on equipment and the kinds of accommodations it should provide. There are double bedrooms, single bedrooms, roomettes, duplex roomettes, etc. Even similarly named accommodations vary in interior arrangements. We need eight cars of one kind to provide a line of through cars in the New York-Los Angeles service, and it is a headache to get them.

If we could get greater standardization of equipment, particularly for through cars and through trains, we would cut down the chance for errors in reservation handling, maintenance cost, and investment, because railroad equipment could be manufactured on a mass-production basis. It would bring about better understanding of our facilities by the public, less confusion and a better opinion of the precision of our service.

Contact with Personnel

Railroad officers should maintain close contact with the rank-and-file, getting employees' reactions, suggestions and ideas. All passenger traffic officers and executives and operating officers as well, should spend a considerable part of their time on the railroad.

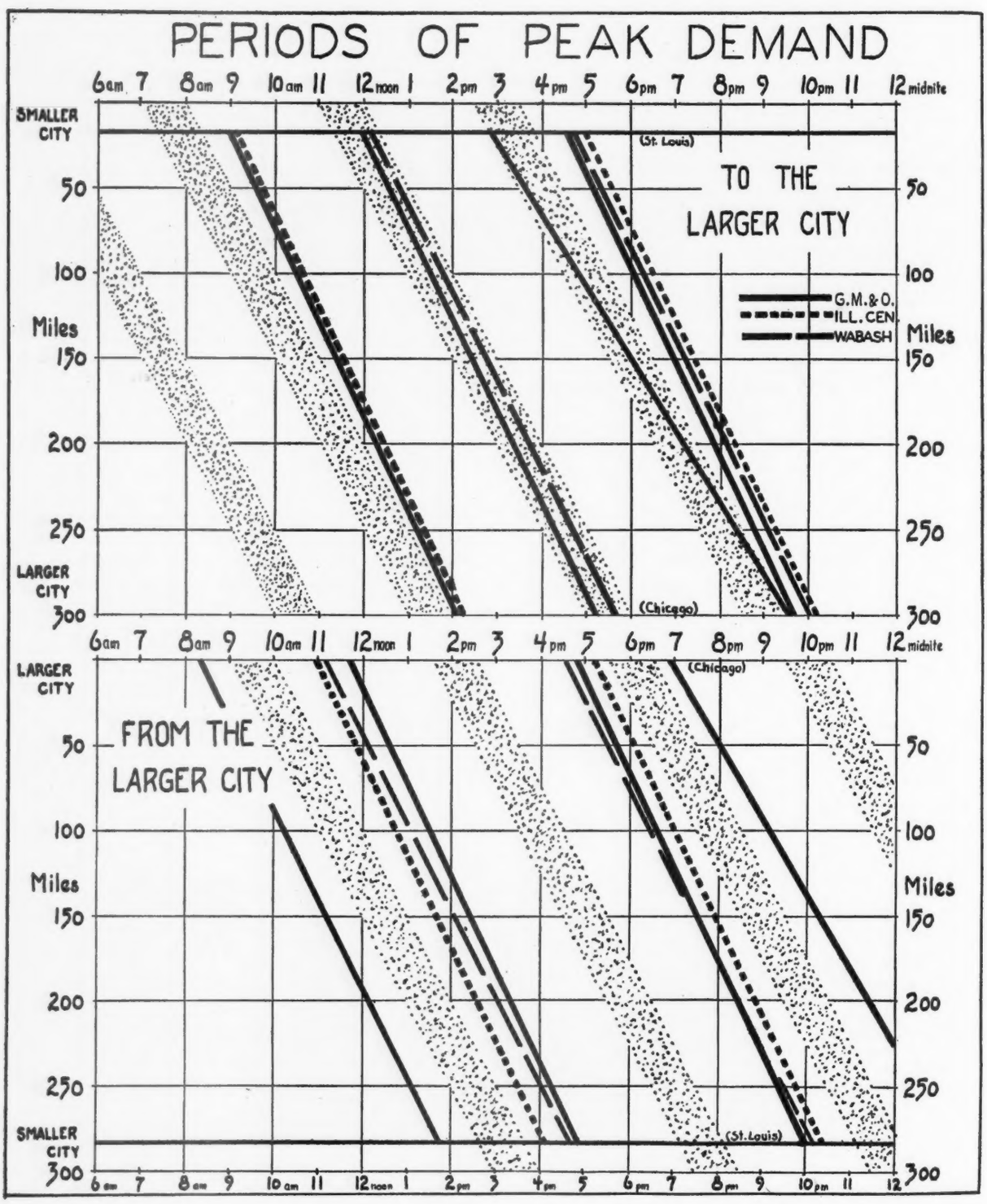
Railroad officers should be concerned about failures and poor service on other lines as well as their own, for such lapses reflect on railroad service generally. We must present a united front against the inroads of other forms of transportation.

It is going to be harder and harder to sell our service against our competitors. People are going to be more particular and it will be harder to separate them from their money. Those railroads which make their service seem smooth, pleasant and, without being impersonal, automatic, are the roads that will capture the public fancy. Because the human factor and human element are so important in the provision of high-quality service, it is in that field where our greatest opportunities lie. Consequently, passenger officers face a tremendous responsibility themselves because, while they may be critical of employee attitudes, productiveness and efficiency, improvement of these factors lies to a large extent in our own resourcefulness, planning and management.

Slow handling of hand baggage is a minor irritation which will require a major overhauling. Baggage elevators in cars on the Southern Pacific's "Daylights" have helped in that direction

TAKING THE GUESSWORK OUT OF THE PASSENGER BUSINESS

By RICHARD A. RICE, JR. and JOHN S. GALLAGHER, JR.



The Authors: **Messrs. Rice and Gallagher are railroad traffic analysts who, together, have had 14 years' railroad experience. They have been engaged for the past two years in extensive studies based on data from a large number of roads, from which they have evolved fairly universal "laws" governing traffic potentials, service and scheduling. The authors welcome any expression of ideas on the subject they present. Communications may be directed: care of Transportation Editor,** *Railway Age,* **105 W. Adams street, Chicago 3.**

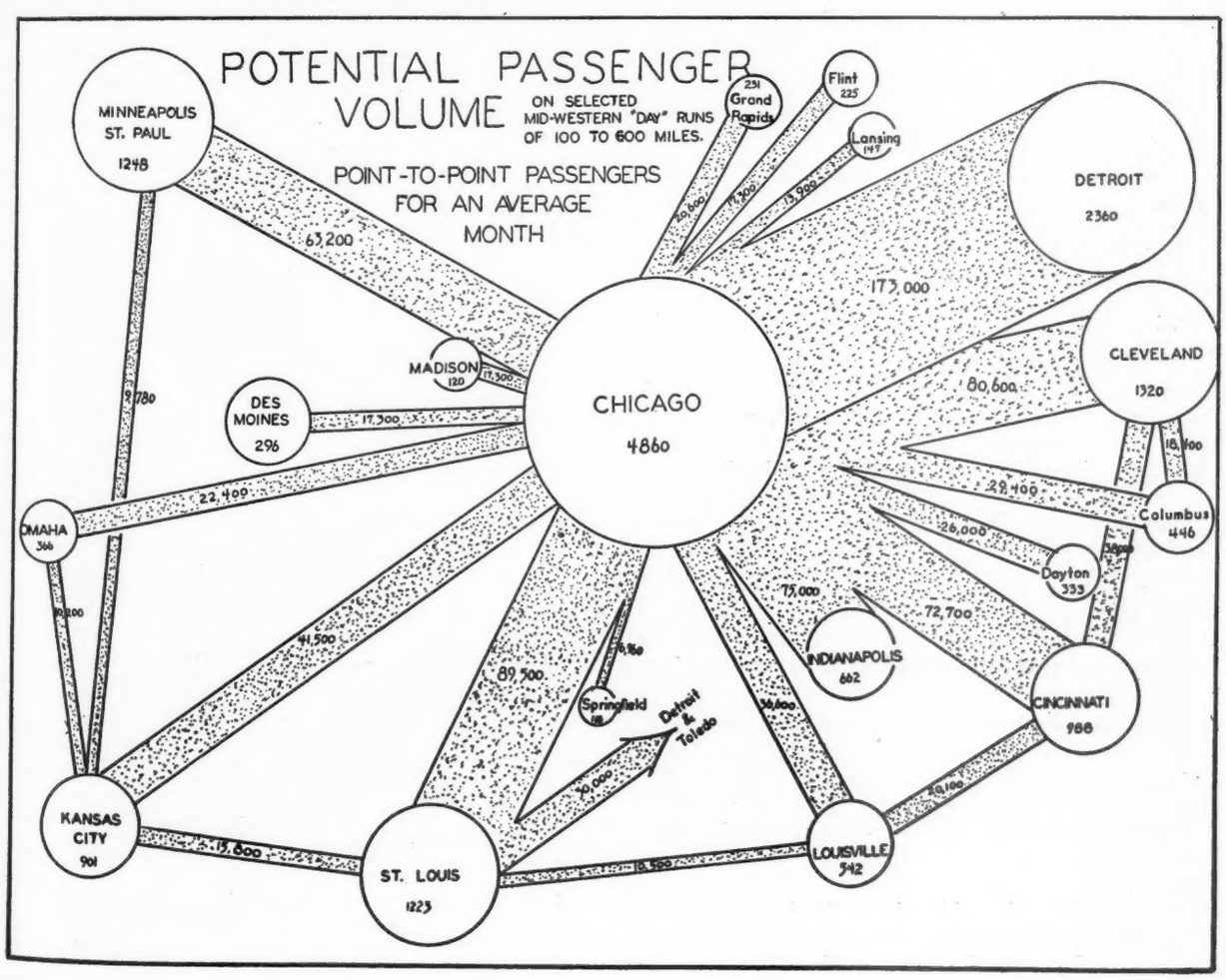
Suppose a railroad that had never run passenger trains decided to go into the passenger business. How could it ascertain in advance the service it should operate so as to realize favorable revenues? Which of its runs would have sufficient potential to justify development? When should it run its trains, and how many trains should it run? What kind of equipment should it buy, and how much? These are important questions which would have to be answered before service could be started. The success of the entire venture would depend upon the accuracy of the answers.

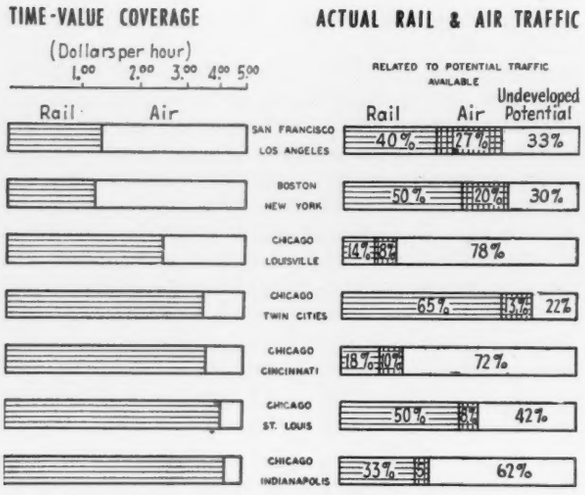
Now, to pose a less academic question, suppose another railroad, which is operating its passenger service at a loss, desires to rearrange its service to reduce or eliminate its losses. Where is there sufficient potential to justify development? When and how should it run its trains? What should be done about equipment? What about competition?

It is possible to compute the answers to these and related questions through the mathematical application of proved traffic control factors. Within the past year,

PERIODS OF PEAK DEMAND—These forms (left) are used for graphing the schedules between any two points. The top block is for schedules from the smaller city to the larger, and the bottom block for return schedules from the larger city to the smaller. The shaded areas (based on an average speed of 50 m.p.h.) illustrate the periods when demand is most insistent. However, the intensity of demand varies from one shaded area to another; each one has a different weight. Each of these areas of insistent demand is referred to as a "ruling schedule period" because the presence or absence of good service in these periods is the greatest single factor in determining how much of the potential traffic available can be realized. For illustration, the schedules of all lines between Chicago and St. Louis have been drawn in on this chart. This apposition suggests why the Gulf, Mobile & Ohio, with trains most closely approximating the "ruling schedules," dominates this operation

POTENTIAL TRAFFIC TO SELECTED POINTS OUT OF CHICAGO—The figures in each line (below) indicate the potential number of point-to-point railway passengers for an average month. On runs served by two or more railroads this represents the combined potential for all carriers. The market value (population-wealth factor) for each city is indicated by the numbers in each circle. It is possible to compute similar potentials for any other run in the country





TIME-VALUE COVERAGE—This chart illustrates the influence of train speed and railroad fares on the distribution of traffic. On runs where the air lines have a low "time-value coverage" they have achieved their largest development of the potential market

research into the fundamental factors governing the volume of passenger traffic has shown that passenger travel everywhere is controlled by the same conditions. The amount of traffic that can be developed by a given rail service between any two cities can be calculated in advance with surprising accuracy. Conversely, it is possible to predict what the effects on traffic will be of any given changes in schedules or service.

In general, there are three groups of factors to be considered:

(1) Potential traffic available, regardless of service offered.

(2) Per cent of the potential that any given combination of schedules and service will realize.

(3) The effects upon traffic of all types of competition.

The potential passenger volume between any two cities depends almost entirely on (1) the population of the cities to be served; (2) the known per capita buying power (or wealth) of each city; and (3) the distance between the two cities. These factors give an accurate picture of the distribution of buying power along any given passenger line, and a measure of the potential number of passengers between any two points on that line. By combining the potentials for all points along the line, it is possible to gain a picture of the total potential available to the line.

Measuring the Success of Any Given Service

Analysis of passenger movements all over the country, on runs of varying distance, has shown that the demand for passenger transportation at each hour of the day varies according to a universal curve. Further research uncovered the existence of certain periods of "peak demand" when the call for transportation is most insistent. These periods of demand closely govern the flow of traffic, which is predominantly from the smaller city to the larger city and return.

It has been possible to establish definite periods when trains should be operated to obtain maximum traffic. The extent to which these periods of peak demand are "covered" by adequate schedules is referred to as "schedule coverage." Examination of highly successful passenger runs, such as Chicago-Peoria; Chicago-Minneapolis; Los Angeles-San Diego; Detroit-Grand Rapids and Atlanta-Columbus, shows that there is a high degree of "schedule coverage" in every case. Conversely, lines with heavy potentials but poor traffic always have poor "schedule coverage."

Only after providing good "schedule coverage" do the other aspects of service — i.e., equipment, fares, stations, etc., become the important considerations.

Where there are competing railroads between two or more cities, it is almost always the line with the best "schedule coverage" that is the dominant carrier.

However, in the case of competing forms of transportation (plane or bus) not only schedules but competitive fares enter the picture. For example, on the Chicago-Twin Cities run the air traveler, in getting from the center of Chicago to the center of either of the Twin Cities, saves about 2½ hours at a cost of $9.98 over the rail traveler. The time he saved by flying cost him $3.75 an hour. Thus we say that the "time-value coverage" on this run is $3.75 an hour. On the Los Angeles-San Francisco run, however, the air traveler saves 5½ hours at a cost of $8.00, or only $1.43 per hour. This probably accounts for the higher ratio of air travelers to rail travelers on this run. The accompanying chart shows that the air lines are realizing a larger part of the potential on runs where their "time-value coverage" is lowest.

Courier nurse service—discontinued during the war—has been restored on a number of trains. Shown here is Nurse Irene Schulte giving instructions on the preparation of baby bottles to the kitchen crew on the Santa Fe's "El Capitan"

A new Pullman car built by the Pullman-Standard Car Manufacturing Company for the Kansas City Southern

2,001 PASSENGER-TRAIN CARS ON ORDER FOR DOMESTIC USE

Recently delivered to the Gulf, Mobile & Ohio, this car was constructed by the American Car & Foundry Co.

New passenger-train cars on order for railroads of the United States on November 1, 1948, totaled 2,001, compared with 3,026 cars on order on November 1, 1947. (The 1947 figure included 550 refrigerator cars for use in passenger express service). Of the cars on order and undelivered at the beginning of this month, 1,950 were ordered from contract builders and 51 from railroad shops. New passenger-train cars delivered to domestic railroads from November 1, 1947, through October 31, 1948, totaled 746, of which 144 were delivered by railroad shops. All of the 504 passenger-train cars ordered in that period will be constructed by contract builders.

On January 1, 1948, passenger-train cars in domestic service totaled 45,184 (including troop sleeping and kitchen cars), of which 17,561 were coaches, 2,671 coach combinations, 1,628 dining cars, 954 parlor, club-lounge, observation and sleeping combinations, 6,089 sleeping cars, 14,172 baggage, express and other non-passenger cars, 1,693 postal and 416 other type cars. The total number of cars owned on January 1, 1948, by domestic Class I railroads, and the age groups into which they fall, are shown in an accompanying graph.

The lightweight, streamlined cars on order for the Atlantic Coast Line, together with equipment on order for the Pennsylvania, the Florida East Coast and the Richmond, Fredericksburg & Potomac, will be used to make up three daily trains between New York and Florida. The A.C.L.'s share of this equipment—74 cars—will cost over $7,500,000. As the road

Interior of a new tavern-lounge-lunch counter car which the Budd Company built for the Chesapeake & Ohio

Lounge section of a new kitchen-lounge car now in operation on the New York Central system. Seating space for 21 passengers is provided

reported last year, the changed passenger traffic situation since the orders originally were placed makes it impracticable to give specific details about the use of the cars when they finally are delivered. Some, as also reported in the November 15, 1947, Passenger Progress issue, will be used to replace conventional Pullman equipment, coaches, dining cars and tavern-lounge cars it is now operating, giving the trains an entirely streamlined character.

On order from the Pullman-Standard Car Manufacturing Company for the BALTIMORE & OHIO are sixteen cars intended for service as a daylight streamliner in daily service in both directions between Chicago and Washington, D. C. The name of the projected train, delivery of which is not expected before late in the first quarter of 1949, has not been made public.

It has not been determined specifically where the cars being built for the CHESAPEAKE & OHIO will be placed in service, but the road expects to use them to replace all principal main-line equipment. No new trains are contemplated for the immediate future. The new passenger cars will have zone-type panel heating and electro-pneumatic sliding doors, and the sleeping cars will be equipped with specially designed mattresses.

The approximate cost of the cars being built for the CHICAGO & NORTH WESTERN, including those on order for the CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA, is $7,372,000. Included in this road's plans for the future is a new daylight streamliner, the "Corn King 400," operating between Chicago, Omaha, Neb., and Sioux City, Iowa. This train will be Diesel-powered and will carry through equipment between Chicago and Sioux City. Also planned is a "Flambeau 400" between Chicago and Ashland, Wis. The "Minnesota 400" is to be extended to operate through from Chicago to Rochester, Minn.-Mankato, carrying a coach with a nurse's room to facilitate travel for invalids to and from the Mayo clinic at Rochester. The sleeping cars on order from Pullman-Standard, as well as those on order for the C. St. P. M. & O., will be assigned to the "Northwestern Limited," between Chicago and St. Paul, Minn.-Minneapolis, including one car between Milwaukee, Wis., and Minneapolis. Some of the cars also will be assigned to the Chicago-Duluth, Minn., service in the "Duluth-Superior Limited."

When the Diesel-electric locomotives on order for the CHICAGO GREAT WESTERN are delivered, all the road's main-line passenger trains will be converted to Diesel power. Two of the new locomotives are scheduled for delivery this month, one next January, and the others in July, 1949.

The CHICAGO, INDIANAPOLIS & LOUISVILLE is converting into passenger-train cars at its Lafayette, Ind., shops, the last two of twenty-eight hospital cars purchased from the United States Army. Originally built by the American Car & Foundry Co. in 1944, one of the two cars will be a 52-passenger de luxe coach, delivery of which is expected this month, and the other, scheduled for delivery next January, will be a 44-passenger grill car. The approximate cost of reconverting each car is $50,000.

All equipment on order for the CHICAGO, BURLINGTON & QUINCY, except two parlor cars, is destined for service in the "California Zephyrs," the daily Chicago-San Francisco, Cal., trains to be operated in connection with the DENVER & RIO GRANDE WESTERN and the WESTERN PACIFIC. The parlor cars will go into Chicago-St. Paul-Minneapolis service.

For service in the "Olympian Hiawathas" operating between Chicago and Seattle, Wash.-Tacoma, the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has on order eight sleeping cars, two of the 10 roomette-6 bedroom type and six of the bedroom-Skytop lounge type. The remaining cars are for service in the "Pioneer Hiawathas," operating between Chicago and St. Paul-Minneapolis.

The DELAWARE, LACKAWANNA & WESTERN's new "Phoebe Snow," operating between Hoboken, N. J., and Buffalo, and into which will go some of the cars on order for that road, will consist of one postal car, three coaches, one dining car, one tavern-lounge-observation car, and, for through passengers west of Buffalo, one sleeping car of the 10 roomette-6 bedroom type. Each of the coaches will seat 64 persons and the lounge section of the tavern-lounge-observation car will seat 35 persons. The train will be hauled by a three-unit 4,500-hp. Diesel-electric locomotive.

Delivery of all the equipment purchased by the DENVER & RIO GRANDE WESTERN, the C. B. & Q. and the WESTERN PACIFIC for use in the "California Zephyrs" has been promised by next February 1, and it is hoped the new service can be inaugurated within a very short time thereafter, according to the D. & R. G. W. The cars now on order from the Budd Company for the Rio Grande are the last of that road's portion of the six complete sets of equipment to be placed in service on the "California Zephyrs" by the three participating roads. Each of the trains will have the following consist: one baggage car, three chair cars with vista domes, one coffee shop-tavern-dormitory car with a vista dome, one dining car, one open-section sleeping car, three sleeping cars of the 10 roomette-6 double bedroom type and one sleeping car of the 3 bedroom-1 drawing room-observation type with a vista dome.

As reported last year, twelve sleeping cars being constructed for the FLORIDA EAST COAST will be used during the winter on the "Florida Special" between Miami, Fla., and New York and on other trains during the summer months. The "Royal Palm," between Miami, Cleveland, Ohio, and Detroit, Mich., via the SOUTHERN and the NEW YORK CENTRAL system, will receive the other six F.E.C. sleeping cars, and the coaches will be used to fill in on trains in eastern and western service. According to the road, it now seems probable some of the equipment for the eastern trains will be received during the first quarter of 1949, although the western equipment will be delivered later.

The total cost of the 48 cars ordered by the GREAT NORTHERN will be approximately $5,260,000. Those being built by American Car & Foundry will go into three streamliners of five cars each, two to operate as the "Morning Puget Sounder" and the "Afternoon Puget Sounder" between Vancouver, B. C., and Seattle, and the third as the "Red River Limited" between St. Paul and Grand Forks, N. D. Each will make a daily round-trip on schedules faster than now. The single-unit 2,000-hp. Diesel-electric locomotives for these trains were delivered last year and are temporarily in other service. Each "Puget Sounder" will have one baggage-mail car, two coaches, one cafe-coach and one parlor-observation car. The "Red River Limited" will consist of one baggage-mail car, three coaches and one cafe-observation car. The passenger-train units coming from Pullman-Standard and the road's own shops will be assigned to the "Empire Builder" and the "Oriental Limited." This road plans to re-equip its "Empire Builder" completely, and the acquisition of 66 additional new cars for this purpose has been authorized. They will cost about $8.5 million.

The GULF, MOBILE & OHIO is in the final stages of a passenger equipment modernization program designed to restyle, inside and outside, all the road's streamlined trains. For the program the road purchased eleven coaches and four parlor cars—which have been delivered—and four sleeping cars. The sleeping cars will be equipped with roller bearings, a combination of incandescent and fluorescent lighting, zone heating and individual air-conditioning controls. All coaches, parlor cars, dining cars and dining-lounge cars which operate in the G. M. & O.'s "Ann Rutledge," the "Abraham Lincoln," the "Alton Limited" and the "Gulf Coast Limited" have been shopped and completely redecorated. "Sleepy Hollow" seats are featured in the coaches and parlor cars. For experimental purposes, the road is trying the "two-and-one" parlor car with a row of single seats down one side and double seats on the other side. Passengers on this car will be polled in an effort to determine the car's travel appeal.

All the ILLINOIS CENTRAL cars being built by Pullman-Standard are for use in the "Green Diamond" between Chicago and St. Louis. Seven cars being rebuilt in the road's own shops will be used as relief cars.

Two new streamlined trains costing over $665,000 will be placed in service by the ILLINOIS TERMINAL when delivery is made of the equipment on order with the St. Louis Car Company. Each will consist of a 40-passenger motor or control car, a 52-passenger day coach and a 21-passenger reserved seat coach. The dining section in the reserved seat coaches will have two tables, each seating four, and a separate table, seating four, for beverage service, card playing or writing. An ornamental glass partition will separate the dining and seat sections in these cars. All cars will be 65 ft. long and 10 ft. wide and construction will be of steel and aluminum alloy with fluted aluminum sides. The two trains—to be named the "Fort Crevecoeur" and the "Mound City"—will run between Peoria, Ill., Springfield, and St. Louis. A third train of this type, named the "City of Decatur," was placed in service this month between Decatur, Ill., and St. Louis.

Passenger-train equipment on order for the LOUISVILLE & NASHVILLE will cost approximately $1,500,000. The two baggage-dormitory cars, two of the sleeping cars of the 10 roomette-6 double bedroom type and two

Compartments in the all-room Pullmans now joining the Northern Pacific's "North Coast Limited" have full-size premade folding type beds and an upper berth

mail-baggage cars will operate on the "Crescent Limited"—the baggage-dormitory and sleeping cars between New Orleans, La., and New York; the three coaches between New Orleans and Atlanta, Ga. Three roomette-double bedroom cars will be placed in service between Memphis and Nashville and New York in connection with the "Cincinnati Limited."

To better facilitate the handling of a large volume of summer tourist travel to and through the Canadian Rockies, the MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE early this year remodeled the kitchens of its dining cars by replacing coal- and charcoal-burning cooking ranges with gas-burning ranges and installing mechanical-type refrigerators and dish-washing machines. Similar improvements were made in the kitchens of the Soo Line's cafe-coach cars operating as a supplement to the dining cars. The road is continuing a program, begun in 1947, of remodeling and redecorating its coaches, the principal features of which include the installing of reclining bucket-type seats, new hat and luggage racks and plumbing, including porcelain lavatories. All the remodeling has been done at the Shoreham shops in Minneapolis.

The cars on order for the NEW YORK CENTRAL, excluding the 100 multiple-unit coaches, represent the balance due on the road's postwar program calling for the installation of 720 new passenger-train cars. Trains which will be fully streamlined with the receipt of the new cars are the "Commodore Vanderbilt," the "Ohio State Limited," the "Southwestern Limited," the "New England States," the "Detroiter," the "Cleveland Limited" and the "Wolverine."

Estimated to cost about $2,800,000, the twenty-five cars on order for the NEW YORK, CHICAGO & ST. LOUIS will be used to streamline existing trains between Chicago, Cleveland, Ohio, and Buffalo, N. Y.; between Chicago, Cleveland and New York (via Buffalo over the DELAWARE, LACKAWANNA & WESTERN); and between St. Louis and Cleveland. Bedrooms on the sleeping cars will have movable, sponge rubber reclining chairs which may be folded and placed under berths at night; enclosed toilets; a combination washstand and dressing table of vitreous china; and folding, sliding partitions so that rooms may be opened into pairs of bedrooms. All the new cars will have large picture windows, 6 in. higher than in the road's present equipment.

The coaches, tavern-lounge-observation cars and two of the dining cars on order for the NORFOLK & WESTERN will replace present equipment on the "Powhatan Arrow" between Norfolk, Va., and Cincinnati, Ohio. The coach equipment and the tavern-lounge cars which are being operated in the "Powhatan Arrow," together with the two other new dining cars and some of the new room-type sleeping cars, will replace the present equipment on the "Pocahontas," operating between Norfolk and Cincinnati, and the train will be extended to operate between Norfolk and Chicago. The other sleeping cars will be assigned to various lines to replace the present heavyweight, open-section sleeping cars. It is estimated that the new equipment to operate in the "Powhatan Arrow" will cost $1,925,000. The twenty-three sleeping cars are estimated to cost $3,100,000 and the two new dining cars for the "Pocahontas" are expected to cost $300,000.

Sleeping cars being built for the N. & W. by Budd will be constructed entirely of stainless steel and those built by Pullman-Standard will be of Cor-Ten steel. Circulating hot and cold water, as well as ice water and complete toilet facilities will be provided in each roomette and bedroom. The coaches, dining cars and tavern-lounge-observation cars also will be made of Cor-Ten steel and wired for a public address system, radio and recorded entertainment. The coaches will be equipped with rotating, reclining seats having adjustable foot rests, and sponge rubber seats, backs and arm rests. Stainless steel toilet enclosures with ceramic tile floor will be used. The entire vestibule, including floor, walls and ceiling will be lined with stainless steel. Electro-mechanical refrigeration will be used in the dining cars and electrically operated garbage disposal units will be supplied. All exposed surfaces in the kitchen and pantry will be of stainless steel.

A 9-car train, part of the READING'S $3,500,000 passenger equipment modernization program, has been built at the road's shops and was placed in service this month between Pottsville, Pa., and Philadelphia. Consisting of one combination car, three reclining-seat cars, one grill-coach and four standard coaches, the train makes two round trips daily. It is air-conditioned and has the same exterior color scheme as the Reading's "Wall Street"—two tones of green. The reclining-seat cars are outfitted with "Sleepy Hollow" seats having air-foam rubber cushions. Each car has a smoking section at one end and each has a different interior color scheme. The grill section of the grill-coach seats 14 passengers and the coach section 32 passengers. With the completion of this train, another modernized train is scheduled to be built for service between Shamokin, Pa., Pottsville, Reading and Philadelphia.

The sleeping cars ordered by the RICHMOND, FREDERICKSBURG & POTOMAC will be named after eastern Virginia counties directly or indirectly served by the

PASSENGER-TRAIN CARS ORDERED, 1920-1947

	Carbuilders' Shops			Railroad Shops		
Year	Passenger Carrying	Non-Passenger Carrying	For Pullman Company	Passenger Carrying	Non-Passenger Carrying	Total
1947....	128	12	0	138	39	317
1946....	1,121	64	0	56	6	1,247
1945....	2,690*	213	0	90	0	2,993
1944....	683*	32	0	10	0	725
1943....	1,670*	0	0	0	15	1,685
1942....	32*	2	0	0	0	34
1941....	206*	115	197	31	0	549
1940....	305	15	53	0	6	379
1939....	175	21	125	0	0	321
1938....	79	33	84	63	19	278
1937....	181	145	171	39	31	567
1936....	367	33	1	38	12	451
1935....	48	69	10	6	0	133
1934....	307	20	8	71	23	429
1933....	13	1	3	2	0	19
1932....	33	6	0	1	4	44
1931....	10	21	1	3	2	37
1930....	405	102	102	16	75	700
1929....	767	677	550	26	363	2,383
1928....	654	1,282	244	53	160	2,393
1927....	993	471	118	84	27	1,693
1926....	965	469	519	55	52	2,060
1925....	1,002	699	479	20	74	2,274
1924....	1,202	761	701	14	97	2,775
1923....	762	930	424	18	98	2,232
1922....	1,442	705	300	23	14	2,484
1921....	125	11	100	1	50	287
1920....	690	380	458	12	51	1,591

*Includes troop hospital, sleeping and kitchen cars
Source: American Railway Car Institute.

road and will replace section-type equipment now in service. The total cost of all passenger-train cars being built for the R. F. & P. will exceed $2,000,000.

On order for the SEABOARD AIR LINE are twenty-two lightweight sleeping cars which, when delivered, will be pooled with similar cars provided by the RICHMOND, FREDERICKSBURG & POTOMAC and the PENNSYLVANIA and used to replace existing Pullman cars on the "Silver Meteor" between Miami and New York and on the "Silver Comet" between Birmingham, Ala., and New York. The cars will be wired for radio and a public address system, as are the new streamlined coaches, dining cars, tavern-observation cars and tavern-coaches now in service on those trains.

Costing over $14,000,000, the SOUTHERN's new passenger-train equipment will be used in trains operated in conjunction with connecting lines: The "Crescent," between New York, Washington, Atlanta and New Orleans; the "Tennessean," between Washington and Memphis; the "Southerner," an all-coach streamliner between New York, Washington, Atlanta and New Orleans; and the "Royal Palm," between the Great Lakes region and Florida via Cincinnati. The "Crescent" will be streamlined and converted into an all-room train. As a result of these changes, some of the streamlined equipment now used in the "Tennessean" and the "Southerner" will be diverted to other trains in the system. While awaiting delivery of the new cars, the Southern has undertaken in its own shops a passenger equipment modernization program costing approximately $1,500,000. This involves work on thirty-one coaches, fourteen passenger-baggage cars, four dinette-coaches, seventeen dining cars and ten partition coaches.

The new cars for the SOUTHERN PACIFIC will cost an estimated $23,339,845 and will be apportioned to various trains as follows—To the "Shasta Daylight," an entirely new train operating between San Francisco and Portland, Ore., over the "Shasta route" on a fast daylight schedule: fourteen chair cars, two chair cars with compartments for conductors and news agents, two chair cars with washrooms for dining-car crews, two tavern cars, three baggage-postal cars and two three-car articulated units consisting of a coffee shop car, a kitchen car and a dining car; to the all-Pullman "Cascade" between San Francisco and Portland-Seattle, which will be completely re-equipped: eighteen all-room sleeping cars, three baggage cars and two three-car articulated units like those for the "Shasta Daylight"; to the "City of San Francisco": two chair cars, one dining car, one coffee shop-lounge car, one lounge car (with a bar, a barber shop and a shower), six Pullman sleeping cars, one baggage-dormitory car and two baggage-mail cars; to the "San Francisco Overland": four dining cars, two lounge cars (with a bar, a barber shop and a shower) and six Pullman sleeping cars; to the "Golden State": three dining cars, four coffee shop-lounge cars, three chair cars, three lounge cars (each with a bar, a barber shop and a shower), eleven Pullman sleeping cars and one baggage-dormitory car; and to the five new "Sunset Limited" trains: six lounge cars (each with a bar, a barber shop and a shower), six dining cars, thirty sleeping cars, fifteen chair cars, five chair cars with compartments for conductors and news agents, five coffee shop-lounge cars, five baggage-dormitory cars and six baggage-mail cars.

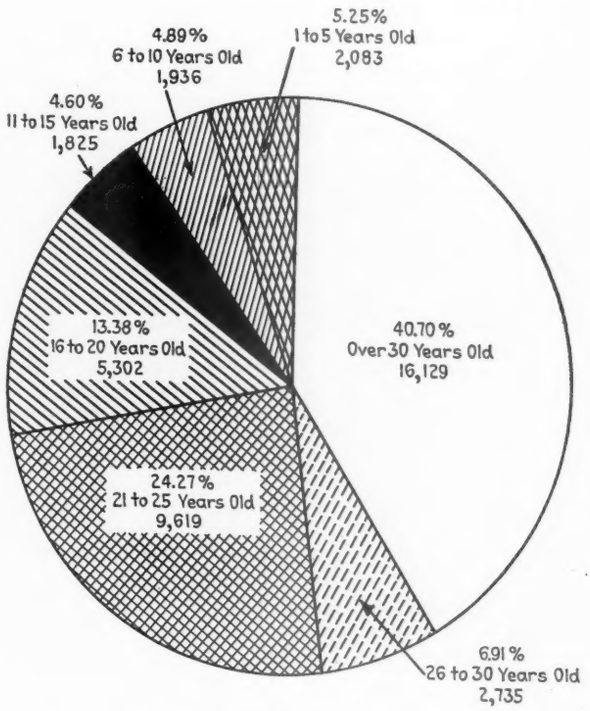
New Diesel-electric passenger locomotives on order for this road total seventeen and will cost $9,799,991, bringing the aggregate cost of new passenger-train equipment on order to $33,139,836. In addition, the S.P. has begun a program involving the refurbishing of its conventional cars which includes such things as providing coaches with air-conditioning equipment and reclining chair-car seats.

The SPOKANE, PORTLAND & SEATTLE has eleven new passenger-train cars on order, and also, at a cost of about $395,000, is rebuilding fourteen baggage, mail and express cars and two day coaches. A new Diesel-electric locomotive costing $210,000 will be delivered in the first quarter of 1949 for service on the day train between Portland, Astoria and Seaside.

As fast as new equipment is received, the UNION PACIFIC reports, it will be used to replace existing cars now on the road's streamliners. This will release lightweight equipment for some of the conventionally equipped trains and may be the means of shortening the schedules of some.

A new six-car, Diesel-powered, streamlined train costing over $1,000,000 and scheduled for operation between St. Louis and Chicago will absorb the cars ordered by the WABASH from Budd. Among the features of this train will be a public address system which also will carry radio programs and wire-recorded music to all cars. Still on order with American Car &

Age of Passenger-Train Cars in the United States (Class I Railroads, January 1, 1948)



Source: American Railway Car Institute

Total Owned—39,629

Foundry is new equipment for the "City of St. Louis," consisting of four coaches and four lightweight sleeping cars of the 12 roomette-4 double bedroom type. The six other sleeping cars of this type will supplant existing sleeping car equipment in Wabash overnight trains between St. Louis and Chicago, Kansas City and Detroit, Mich.

The ALASKA, owned by the United States Department of the Interior, has on order from the Puget Sound Bridge & Dredging Co., Seattle, three 52-passenger coaches with reclining chairs, and a buffet-lounge car. The equipment is being reconverted from army hospital cars and delivery at Whittier, Alaska, is expected this month.

On order from the Canadian Car & Foundry Co., Montreal, Que., for the CANADIAN PACIFIC are the following cars, the expected delivery dates of which are shown in parentheses: twenty-five baggage-express (November, 1948); twenty mail-express (December, 1948); and six horse-express (January, 1949). The National Steel Car Company, Hamilton, Ont., is building frames for twenty-five 68-passenger coaches and ten sleeping cars of the 5 bedroom-10 roomette type. Delivery of the coach frames is scheduled for March, 1949, and no date has been set for delivery of the sleeping car frames. These cars, as well as fifty additional 68-passenger coaches (the frames of which are scheduled for delivery by Canadian Car & Foundry in March, 1949), will be finished in the C. P. R.'s Angus shops in Montreal. According to present plans, these cars will be assigned to various main-line trains throughout the system.

PASSENGER-TRAIN CARS ON ORDER FOR DOMESTIC SERVICE, NOVEMBER 1, 1948

Railroad	No.	Type	Seating Cap.	Expected Date of Delivery	Builder
Atch., Top. & S. Fe.	15	4 Comp.—4 Bedroom—2 Doubroom	..	Start July, '49	Am. C. & F.
	13	10 Roomette—3 Bedroom—2 Compt.	..	Start July, '49	Am. C. & F.
	1	4 Double room—1 Bedr'm—Obs.	..	Start July, '49	Am. C. & F.
	14	Baggage	..	Start 3rd qtr. '49	Am. C. & F.
	4	Bag.-Mail	..	Start 3rd qts. '49	Am. C. & F.
	27	10 Roomette—6 Double Bedr'm	..	Start 3rd qtr. '49	Budd
	24	Chair	44	Start 2nd half '49	Pull.-Std.
	6	Lounge	57	Start 1st half '49	Pull.-Std.
	3	Parl-Lnge.	30 Lnge. 16 Parl.	Start 1st qtr. '50	Pull.-Std.
	1	Club Lounge	51	Start 1st qtr. '50	Pull.-Std.
	1	Club-Lnge.-Dorm.	30	Start 1st qtr. '50	Pull.-Std.
	6	Club-Lnge.-Dorm.	24	Start 1st qtr. '50	Pull.-Std.
	7	Chair-Bag.-Dorm.	28	Start 1st qtr. '50	Pull.-Std.
	12	Lunch Counter-Dining	34	Start 1st qtr. '50	Pull.-Std.
	7	Dining	36	Start 1st qtr. '50	Pull.-Std.
Atlanta & West Point	2	Coach	..	.....	Budd
	1	Dining	..	.....	Budd
	2	Sleeping	..	.....	Pull.-Std.
Atlantic Coast Li.	25	6 Double Bedr'm-10 Roomette	22	Summer '49	Pull.-Std.
	5	21 Roomette	21	Summer '49	Pull.-Std.
	10	Dining	36	Summer '49	Pull.-Std.
	20	Coach	54	Summer '49	Pull.-Std.
	6	6 Doub. Bedr'm-Bar-Lnge.	24 Lnge. 12 Bed.	Sum. '49	Am. C. & F.
	6	2 Double Bedr'm-14 Roomette	20	Summer '49	Am. C. & F.
	2	Baggage	..	Summer '49	Am. C. & F.
Balt. & Ohio	10	Coach	..	.....	Pull.-Std.
	2	Baggage	..	.....	Pull.-Std.
	4	Dining	..	.....	Pull.-Std.
Chesa. & Ohio	69	Coach	52	Start Sept. '49	Pull.-Std.
	75	6 Double Bedr'm-10 Roomette	..	Start Aug. '49	Pull.-Std.
	5	11 Double Bedr'm	..	.....	Pull.-Std.
	8	5 Double Bedr'm-Buff.-Lnge.-Obs.	26	.....	Pull. Std.
	8	Kitchen-Crew	..	.....	Pull.-Std.
	8	Dining	52	.....	Pull.-Std.
	4	Parlor	30	.....	Pull.-Std.
	4	Lunch Counter-Buff.-Bar-Lnge.	38	.....	Pull.-Std.
	3	Bag.-Mail	..	.....	Pull.-Std.
	3	Baggage	..	.....	Pull.-Std.
	3	Coach-Baggage	32	.....	Pull.-Std.
	2	Kitchen-Dining	44	.....	Pull.-Std.
Chic. & No. West.	2	16 Dup.-Roomette-3 Double Bedr'm-1 Compt.	..	.....	Pull.-Std.
	1	Coach-Nurse's Room	..	2nd qtr. '49	Pull.-Std.
	9	Parlor	..	2nd qtr. '49	Pull.-Std.
	4	Baggage-Mail	..	2nd qtr. '49	Pull.-Std.
	1	Dining	..	2nd qtr. '49	Pull.-Std.
	1	Cafe Coach	..	2nd qtr. '49	Pull.-Std.
	4	Bag.-Tap-Cafe-Lnge.		2nd qtr '49	Pull.-Std.
	2	4 Bedroom-12 Roomette	..	1st qtr. '50	Am. C. & F.
	2	6 Sect.-6 Roomette-4 Dble. Bedroom	..	1st qtr. '50	Am. C. & F.
	3	Baggage-Dorm.	..	Aug. '49	Am. C. & F.
	4	Dining	..	March '49	Am. C & F.
	3	Cafe Lounge	..	May '49	Am. C. & F.
	3	Club Lounge	..	July '49	Am. C & F.
	1	Mail-Baggage	..	Sept. '49	Am. C. & F.
	2	Mail-Storage	..	Sept. '49	Am. C. & F.
Chic., Burl. & Quincy	2	Dining	48	1948	Budd
	1	Buff.-Dorm. (Vista Dome)	..	1948	Budd
	3	3 Dble. Bedroom-Dble. room-Buff.-Obs. (Vista Dome)	..	1948	Budd
	2	Parlor	..	3rd qtr. '49	Budd
Chic., Mil. St. Paul & Pacific	2	6 Bedroom-10 Roomette	..	1948	Pull.-Std.
	6	8 Bedroom-Skytop Lounge	..	1948	Pull.-Std.
	7	4 Bedroom-8 Duplex-6 Roomette	..	1948	Pull.-Std.
	4	4 Bedroom-16 Duplex	..	1948	Pull.-Std.
Chic., R. I. & Pac.	12	Coach	..	.....	Pull. Std.
Chic., St. P. Minn. & Omaha	5	3 Dble. Bedroom-16 Dup. Roomette-1 Compt.	..	.....	Pull.-Std.
Del., Lack. & West.	15	Coach	64	Dec. '48 to Feb. '49	Am. C. & F.
	10	Coach	64	Aug. '50	Am. C. & F.
	9	6 Bedroom-10 Roomette	..	Dec. '48 to Feb. '49	Am. C. & F.
	2	Dining	36	July '49	Budd
	2	Tavern-Lounge	35 Lnge.	July '49	Budd
	10	Coach	64	Aug. '49	Pull.-Std.
Denver & Rio Gr. W.	2	Sleeping	..	.....	Budd
	2	Dining	..	.....	Budd
Erie	30	Baggage	..	.....	Am. C. & F.
	7	6 Dble. Bedroom-10 Roomette	..	2nd qtr. '49	Pull.-Std.
Florida East Coast	15	21 Roomette	..	.....	Pull.-Std.
	5	Coach	54	.....	Pull.-Std.
	2	Dining	48	.....	Pull.-Std.
	3	6 Bedroom-12 Roomette	..	.....	Am. C. & F.
	1	Baggage	..	.....	Am. C. & F.
	1	Coach	54	.....	Budd

Railroad	No.	Type	Seating Cap.	Expected Date of Delivery	Builder
Great Northern	3	Baggage-Mail	..	1949	Am. C. & F.
	7	Coach	60	1949	Am. C. & F.
	2	Cafe-Coach	28 Coach 24 Cafe	1949	Am. C. & F.
	2	Parlor-Obs.	34	1949	Am. C. & F.
	1	Cafe-Obs.	22 Cafe 18 Obs.	1949	Am. C. & F.
	6	Coach	52	4th qtr. '49	Pull.-Std.
	12	Coach	48	4th qtr. '49	Pull.-Std.
	11	8 Bedroom-3 Compt.	..	4th qtr. '49	Pull.-Std.
	1	Obs.-Lounge	..	4th qtr. '49	Pull.-Std.
	1	Baggage-Mail	..	1948	R. R. Shops
	1	Dining	36	1949	R.R. Shops
	1	Coffee Shop-Lnge	20	1949	R.R. Shops
Gulf, Mob. & Ohio	4	4 Sect.-8 Roomette-2 Bedr'm-2 Compt.	..	4th qtr. '49	Am. C. & F.
Ill. Cent.	1	Tav-Coach-Lnge.	38	November	Pull.-Std.
	1	Parlor-Bar-Lnge	36	November	Pull.-Std.
	1	Parlor-Obs.	32	November	Pull.-Std.
	1	Dining	48	November	Pull.-Std.
Ill. Terml.	2	Combine	40	.....	St.Louis Car
	1	Coach	52	.....	St.Louis Car
	2	Dining	21	.....	St.Louis Car
Kans. City Southern	2	Bagg.-Mail-Dorm...		December	Am. C. & F.
	2	Coach	67	December	Am. C. & F.
	4	Coach	65	December	Am. C. & F.
	2	Dining	36	December	Am. C. & F.
Long Is.	42	Double-deck Coach	132	.....	P.R.R. Shps
Louisville & Nashv.	2	Baggage-Dorm.	..	1949	Am. C & F.
	2	Baggage-Mail	..	1949	Pull.-Std.
	5	6 Double Bedroom 10 Roomette	..	1949	Pull.-Std.
	2	Bedroom-Obs.-Lnge.	25	1949	Pull.-Std.
	1	Dining	44	1949	Budd
	3	Coach	52	1949	Budd
Miss. Pac.	3	Coach	60	June '49	Budd
	2	Dining-Lnge.	32 Din. 24 Lnge.	June '49	Budd
	6	6 Dble. Bedroom-10 Roomette	.	June '49	Budd
New York Central	31	22 Roomette	22	Early '49	Budd
	40	6 Dble. Bedroom-10 Roomette	22	Nov. '48 to March '49	Budd
	11	6 Dble. Bedroom-Bar-Lounge	34	Early '49	Budd
	7	5 Dble. Bedroom-Bar-Lnge.-Obs.	25	1st half '49	Budd
	87	6 Dble. Bedroom-10 Roomette	22	1948-49	Pull.-Std.
	14	12 Dble. Bedroom	24	1st qtr. '49	Pull.-Std.
	16	6 Dble. Bedroom-Bar-Lnge.	34	Nov. '48-Jan. '49	Pull.-Std.
	1	5 Dble. Bedroom-Bar-Lnge.-Obs.	25	March '49	Pull.-Std.
	100	M.-U. Car	130	Start 4th qtr. '49	St.Louis Car
N.Y., Chic., & St. L.	15	Sleeping	..	3rd qtr. '49	Pull.-Std.
	10	Coach	52	3rd qtr. '49	Pull.-Std.
N.Y., N.H. & H.	15	Grill	48	Dec. '48 to Feb. '49	Pull.-Std.
	10	Dining	48	Nov.-Dec.	Pull.-Std.
	2	Tav.-Obs.-Lnge.	57	November	Pull.-Std.
	6	4 Dble. Bedroom-12 Duplex	20	June '49	Pull.-Std.
	21	4 Dble. Bedroom-14 Roomette	22	July '49	Pull.-Std.
Norfolk & West.	2	Coach-Locker	48	1st qtr. '49	Pull.-Std.
	2	2 Compt. Coach	66	1st qtr. '49	Pull.-Std.
	10	Coach	58*	1st qtr. '49	Pull.-Std.
	2	Tav.-Lnge.-Obs.	52	1st qtr. '49	Pull.-Std.
	3	6 Bedroom-10 Roomette	22	December	Pull.-Std.
	4	Dining	36	.....	Pull.-Std.
	20	6 Bedroom-10 Cabin	22	2nd qtr. '49	Budd
Penn.	3	Coach	..	.....	Am. C. & F.
	4	Combine	..	.....	Am. C. & F.
	2	Baggage	..	.....	Am. C. & F.
	33	Sleeping	..	.....	Am. C. & F.
	7	Dining	..	.....	Am. C. & F.
	5	Various	..	.....	Am. C. & F.
	2	Combine	..	.....	Budd
	59	Sleeping	..	.....	Budd
	12	Dining	..	.....	Budd
	6	Various	..	.....	Budd
	2	Coach	..	.....	Pull.-Std.
	102	Sleeping	..	.....	Pull.-Std.
	6	Dining	..	.....	R.R. Shops
Reading	8‡	M.-U. Coach	..	Start Nov.	Am. C. & F.
Richmond, Fredericksburg & Potomac	1	6 Dble. Bedroom-Bar-Lounge	..	April '49	Am. C. & F.
	1	2 Double room-14 Roomette	..	April '49	Am. C. & F.
	6	Dble. Bedroom-10 Roomette	..	4th qtr. '48	Pull.-Std.
	1	21 Roomette	..	May '49	Pull.-Std.
	4	6 Dble. Bedroom-10 Roomette	..	April '49	Pull.-Std.
	3	Coach	54	March '49	Pull.-Std.
	1	Dining	..	May '49	Pull.-Std.
Seaboard Air Line	3	6 Dble. Bedroom-Buffet-Lounge	..	Early '49	Am. C. & F.
	6	6 Dble. Bedroom-10 Roomette	..	Early '49	Budd
	13	6 Dble. Bedroom-10 Roomette	..	Early '49	Pull.-Std.
Southern	11	Coach	52	1949-50	Am. C. & F.
	3	Baggage-Mail	..	1949-50	Am. C. & F.
	2	Lounge-Bar	..	1949-50	Am. C. & F.
	2	Baggage-Dorm.	..	1949-50	Am. C. & F.
	9	Dining	44	2nd & 3rd qtrs. '49	Budd
	19	Coach	52	2nd & 3rd qtrs. '49	Budd
	6	Coach-Lounge	34	2nd & 3rd qtrs. '49	Budd
	2	Baggage-Mail	..	1st half '49	Pull.-Std.
	29	Bedr'm-R'mette	16	1st half '49	Pull.-Std.
	11	Bedr'm-R'mette	18	1st half '49	Pull.-Std.
	3	Bedroom-Obs.	..	1st half '49	Pull.-Std.
	4	Bedroom-Lnge.	..	1st half '49	Pull.-Std.
Southern Pacific	5	Dining	48	1949	Pull.-Std.
	41	Sleeping	..	1949	Pull.-Std.
	3	Baggage	..	1949	Pull.-Std.
	14	Chair	48	1949	Pull.-Std.
	2	Chair	46	1949	Pull.-Std.
	2	Chair	38	1949	Pull.-Std.
	2	Tavern	56	1949	Pull.-Std.
	3	Baggage-Postal	..	1949	Pull.-Std.
	5	Chair	44	1949	Pull.-Std.
	5	Coffee Shop-Lnge	32 Din. 14 Lnge.	1949	Pull.-Std.
	6	Lounge	39	1949	Pull.-Std.
	2	Baggage-Dorm.	..	1949	Pull.-Std.
	2	Baggage-Mail	..	1949	Pull.-Std.
	3	Dining	36	1949	Pull.-Std.
	2	Lnge.-Bar	48	1949	Pull.-Std.
	2	Dining	44 †	1949	Pull.-Std.
	2	Kitchen-Dorm.	..	1949	Pull.-Std.
	2	Coffee Shop	66	1949	Pull.-Std.
	2	Kitchen	.. †	1949	Pull.-Std.
	2	Dining	66	1949	Pull.-Std.
	6	Lounge	39	1949	Budd
	6	Dining	48	1949	Budd
	30	Sleeping	..	1949	Budd
	15	Chair	48	1949	Budd
	5	Chair	44	1949	Budd
	5	Coffee Shop-Lnge.	32 Din. 14 Lnge.	1949	Budd
	5	Baggage-Dorm.	..	1949	Budd
	6	Baggage-Mail	..	1949	Budd
Spokane, Portld. & Seat.	1	Dining-Lounge	32 Din. 10 Lnge.	Mid. '49	Pull.-Std.
	1	Baggage-Dorm.	..	Mid. '49	Pull.-Std.
	7	Coach	48	Mid. '49	Pull.-Std.
	2	3 Dble. Bedroom-Roomette-Obs.	..	Mid. '49	Pull.-Std.
Un. Pac.	17	Dining	48	March '49	Am. C. & F.
	6	Club-Dorm.	..	May '49	Am. C. & F.
	7	Cafe-Lnge.	..	June '49	Am. C. & F.
	9	Club-Lnge.	..	Aug. '49	Am. C. & F.
	9	Baggage-Dorm.	..	Oct. '49	Am. C. & F.
	3	Post Office	..	Oct. '49	Am. C. & F.
	3	Post Office	..	Nov. '49	Am. C. & F.
	11	Mail-Storage	..	Dec. 49	Am. C. & F.
	11	4 Bedroom-12 Roomette	..	Feb. '50	Am. C. & F.
	4	4 Bedroom-6 Sect.-6 Roomette	..	June '50	Am. C. & F.
	50	6 Bedroom-10 Roomette	..	.....	Budd
	50	Coach	44	.....	Pull.-Std.
Wabash	1	Buff.-Lnge.-Bagg.	..	.....	Budd
	3	Coach	54	.....	Budd
	1	Dining-Lnge.	.	.....	Budd
	1	Obs.-Parlor-Lnge.	..	.....	Budd
	4	Coach	..	.....	Am. C. & F.
	10	4 Dble. Bedroom-12 Roomette	..	.....	Am. C. & F.
Western Pacific	7	Sleeping	..	.....	Budd
	4	Dining	..	.....	Budd
Western of Ala.	1	Coach	..	.....	Budd
	1	Sleeping	..	.....	Pull.-Std.
	1	Postal	..	.....	Pull.-Std.
Wis. Central	2	Baggage	..	.....	Am. C. & F.

* Not including lounges.
‡ 8 units of 2 cars each.
† 3-car articulated units.

Railroads must exploit opportunities for cost reduction—Expansion of commissary activities might provide a cushion for losses—Coach counter service finds favor

Left—Lunch counters reduce personnel requirements and meet a much-needed demand for less expensive service to coach passengers. The car pictured is in service on the Northern Pacific's "North Coast Limited." Above—The Illinois Central has an intensive training program for its dining car employees

DINING CAR DILEMMA

If you ran a grocery store and found yourself "losing your shirt"—even though your operation was as efficient as you could make it and your prices as high as you dared charge—you would probably seek greater volume of sales. If you found, however, that the more you sold, the more you lost, you'd probably get out of the grocery business as fast as you knew how.

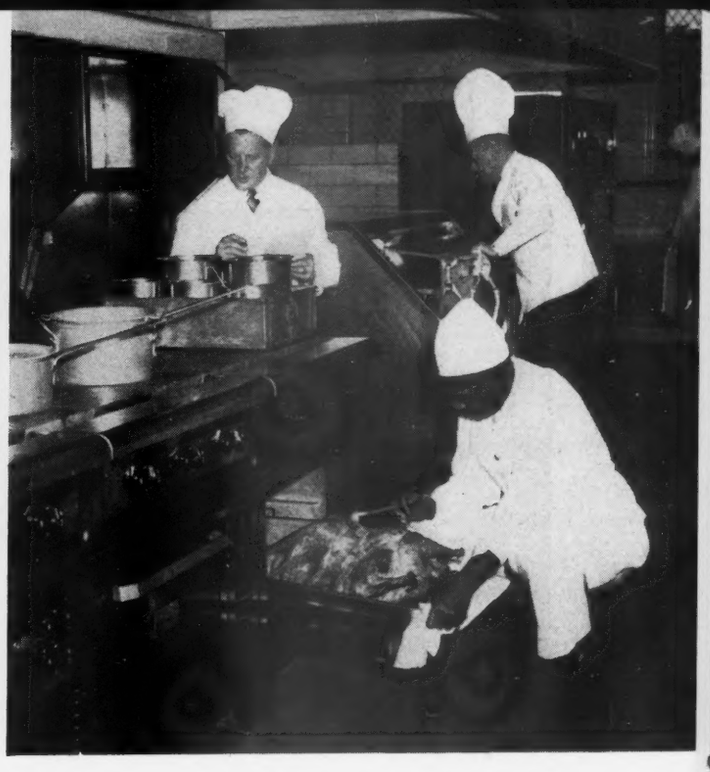
This is the sort of dilemma that faces the railroads in the operation of their dining car departments, but they have no such quick escape. While it is true that volume sales during the war years caused dining car service *almost* to break even, the crowded condition of diners and the limited-selection menus which were offered under wartime rationing would be entirely unacceptable in peacetime. Reversion to 1944 service standards and menus would drive passengers away, whereas it is a primary function of the dining car department to hold existing travel and to attract new business to the railroad.

The table shows that dining-car service was unprofitable as far back as 1918, and that its losses had increased up to prosperous 1929, and again to prewar 1940. The abnormal conditions prevailing in 1943 have already been mentioned. The year 1947 showed some improvement over 1940, but it is clear that much is left to be accomplished before the loss can be turned into net.

Wages of dining car personnel and the cost of foodstuffs served, combined, average from 100 to 110 per cent of the total dining car revenues on representative dining car operating roads. These two items appear to be about as well controlled as possible. A cut in the personnel costs—since wages are fixed—means a reduction in the number of employees and, therefore, a cut in the quality of service. A reduction in the food bill means a cheapening of the cuisine. Since neither is desirable, there are left only dining car supplies other than edibles, terminal charges, cleaning costs, fuel and refrigeration costs, and maintenance of crew quarters in which to seek economies. But even if these latter items were eliminated entirely—which is impossible—there still would be no net.

Analysis suggests that something more positive than penny-pinching is needed to cut dining car deficits. Since the railroads already maintain commissary departments, completely staffed with experts, and fully equipped for the purchase, storage and purveyance of foodstuffs, perhaps they should expand and take over operations of station restaurants, establish new station lunch counter facilities and snack bars, and operate newsstands. These more remunerative operations are now largely allotted to concessionaires. The profitable sale of magazines, tobacco, candy, newspapers and knickknacks—now conceded to outside interests—might well become a supporting arm of the dining car department, utilizing car personnel on trains during slack periods and occupying station space for which overhead is already provided.

One railroad which ran dining cars at a loss was able to eliminate their operation entirely because its runs were short. The commissary department was kept intact, however, and given charge of station lunch counters and newsstands set up in four stations, and newsstands only in three additional sta-



Female help in dining cars has proved satisfactory where runs are not too long. The car pictured at the left is a C. & O. twin-unit diner with seats for 52 passengers. Modern commissary facilities (right) permit utilization of the latest methods of food handling and preparation, with resultant economies. The all-electric kitchen in the Pennsylvania's new half-million dollar Chicago commissary prepares some foods just in advance of train departures, relieving car kitchen crews of many time-consuming jobs

The ratio of dining car revenue to total passenger revenue has increased steadily over the past 29 years. The ratio of dining car expenses to dining car revenues has never been satisfactory, and was 130.6 in 1947.

Year	Passenger Revenue (thousands)	Dining Car Revenue (thousands)	Ratio of Dining Car Rev. to Pass. Rev.	Dining Car Expense (thousands)	Ratio of Dining-Car Exp. to Dining Car Rev.
1918	$1,032,870	$22,141	2.14	$23,647	106.8
1929	873,564	34,780	3.98	46,154	132.7
1940	417,269	23,428	5.61	32,028	136.7
1943	1,652,868	92,538	5.60	93,813	101.4
1947	963,322	83,400	8.66	108,952	130.6

tions. The operation was started in depression 1936, but produced a net income that year of approximately $2,500, about 3½ per cent of the gross. By 1940 the volume of sales was up nearly 20 per cent and the net nearly trebled. Last year the gross exceeded half a million, and the net was approximately $67,000. The lunch counter operations are in cities of but medium size. The combined population of all four is less than 310,000. It was not possible to establish similar facilities at larger population centers because the railroad is in stations at these points on a tenant basis; otherwise, it is probable that the net would be very much greater. This is a small scale example, but is indicative of the possibilities which are open to the dining car departments to neutralize the losses of their rolling restaurants by operation of stationary dining rooms.

It is interesting to note that the port authority of New York reports that it has been able to convert its airport deficits to net mostly through revenue obtained by operation of concessions.

There may be some opportunity for better personnel utilization on coach and Pullman trains by the establishment of one- or two-man coach lunch counters, permitting a reduction in the number of tables and waiters in the main dining car. These facilities appear to have considerable passenger appeal, too. Dining car patrons have diverse backgrounds and tastes, whereas the customers of hotel dining rooms and restaurants automatically sort themselves into relatively homogeneous groups. The provision of two types of food service may, then, not only enable the road to cut costs, but also to satisfy a greater number of passengers. Coach-buffet service makes it possible for the passenger who is traveling "on a shoe-string" to eat at a price within his range. At the same time, the *decor* of the dining car is preserved for the passengers who can afford more elaborate service, and who, in fact, demand it. Coach-counter service might sometimes avert the necessity of adding a second diner during seasonal rushes—an exceedingly expensive practice for the accommodation of relatively few passengers.

A positive way to reduce losses from dining car operations is to cut out the operation altogether. Rescheduling might accomplish this, particularly on overnight trains with arrivals scheduled just late enough for meal service to be demanded. A faster run, or earlier departure, might obviate the necessity for including a breakfast-only dining car in the train.

Some important savings have been made through kitchen and pantry rearrangements. The installation of electric refrigeration has released up to 30 or 40 per cent of the space formerly required for ice, and has made possible the use of frozen foods stored in deep-freeze units. Cooking with gas, electricity or "briquettes" has effected cost reductions or improved kitchen cleanliness and working conditions. Plastic aprons, paper cups and paper napkins have proved economical and especially well adapted to use in the coach-counter type cars.

Bus fares have increased only 10 per cent since 1941. Air line fares are up only 3½ per cent from 1941

FARES UP MUCH LESS THAN LIVING COSTS

Rail rates still are generally below level of depression period, but fact is clouded by federal tax—Air lines launch low-fare "bargains"

During the 12 months since publication of the 1947 Passenger Progress issue, railroads in all districts have increased their fares in varying amounts to meet the continued upswing in operating costs. Other changes in the prices of railroad passenger services during the period include increases in commutation fares in the New York, Chicago and San Francisco areas; a raise in charges for certain so-called "luxury" Pullman accommodations; and a boost of the per-bag "red cap" fee and parcel checking fee from 10 to 15 cents in certain localities.

In brief, first-class fares were raised to 4 cents per mile in the East and to 3.5 cents in the West. Coach fares went to 3 cents on the eastern carriers and to 2.5 cents on the western roads and 11 southern roads (26 southern roads had previously raised their coach and first-class fares to 2.5 cents and 3.5 cents per mile, respectively). In addition, the western railroads raised their intermediate-class fares to 3 cents.

While these changes were taking place, competitors of the railroads—particularly the air lines—were also revising their fares upward. The air carriers put into effect two raises, each approximating 10 per cent. The first industry-wide increase occurred in December, 1947, and the second in September, 1948.

To offset fare increases somewhat, the air lines have concocted several so-called "bargain" fares which are lower than railroad fares in some instances and represent some of the lowest charges in the history of air transportation. Certain air carriers have inaugurated, or plan to inaugurate, on an individual basis, the following "bargains":

(1) Family fares, whereby all members of the family can travel at half-fare during the first part of the week when accompanied by the head-of-the-house at full fare.

(2) Group travel, which features a 20 per cent reduction in fares when 10 or more persons travel in a group.

(3) "Coach" service, which eliminates the "frills" of more luxurious air travel and is intended to be comparable to railroad coach service.

Some air lines have inaugurated round-trip excursion fares at reductions ranging from 15 per cent to 25 per cent. With the general increase of air fares on September 1, the majority of lines knocked off the extra charge heretofore made for passage on the so-called "luxury" planes. The air lines are allowing a 5 per cent discount on round-trips, but the old 15 per cent discount air travel card (primarily for businessmen) has not been restored.

Although air lines fares have increased some 30 per cent during the past 18 months, they are today only 3½ per cent above 1941, due to the fact that sharp fare reductions were made by the air carriers immediately following the war's end.

During the first four months of this year, the volume of rail and air travel slumped about 10 per cent and 5 per cent, respectively, while bus travel generally managed to "hold its own." Meanwhile, the private automobile is expanding its grip on the nationwide travel market. There are several indications that more people are driving, among which are the following: (1) An increase in bridge and tunnel tolls; (2) a postwar record of 360,000 new

Table I — Comparative Travel Costs (as of November 1, 1948)

Chicago to:	Air		Bus		Rail—Coach		Rail—Pullman*		Automobile#
	One Way	Round Trip	One Way	Round Trip	One Way	Round Trip	One Way	Round Trip	Round Trip
Milwaukee, Wis.	$ 5.05	$ 9.60	$1.40	$2.50	$2.12	$3.85	$3.78	$ 6.60	$ 7.88
St. Louis, Mo.	15.55	29.50	4.95	8.95	7.44	13.40	13.71	24.05	23.66
Pittsburgh, Pa.	26.45	50.30	7.90	14.25	14.10	21.85	22.90	43.60	37.24
New York, N. Y.	44.10	83.80	13.60	21.80	27.30	41.55	44.10	80.90	66.38
Dallas, Tex.	55.30	105.10	15.50	27.90	23.86	42.95	42.30	73.50	83.68
Butte, Mont.	82.75	157.20	28.65	51.60	39.03	70.30	67.46	133.40	119.88
Phoenix, Ariz.	94.80	180.10	30.95	55.75	45.97	81.25	80.81	140.20	141.10
Los Angeles, Cal.	113.75	216.10	36.85	66.35	48.79	81.25	95.86	150.75	172.40

*Includes parlor car seat to Milwaukee—lower berth to other points.
#Includes only the cost of operating automobile, at rate of 3.5 cents per mile plus $1.30 per day (Source—American Automobile Association). Federal tax not included

Table II — Comparison of Current Rail Fares with Those of 1932

Chicago to:	Coach		Pullman, Including Lower Berth	
	1932	Current	1932*	Current
New York				
One-way	$32.70	$27.30	$41.70	$44.10
Round-trip	65.40	41.55	83.40	80.90
Miami, Fla.				
One-way	$52.13	35.90	67.51	62.89
Round-trip	104.26	64.15	135.02	113.70
Denver, Colo.				
One-way	$37.28	25.88	48.16	45.49
Round-trip	74.56	46.60	96.32	78.90

*Includes surcharge, since removed
Federal tax not included

cars registered in August; (3) an increase of 7.3 per cent in vehicle-miles on U. S. highways during May, 1948, compared with the same month in 1947, according to the Public Roads Administration; and (4) a reported 10 per cent increase in automobile travel during the past summer, when 60,000,000 persons vacationed by auto. In addition, the automobile industry expects to build 3,800,000 cars this year, which would be the best production year since 1929. A survey by the American Magazine discloses that two out of five families plan to buy cars before 1950.

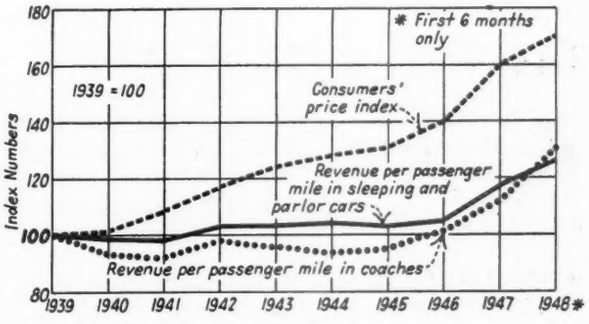
Private automobile travel has not escaped the effect of higher costs, but increases have been less than on many other things in the family budget. To compare costs of travel by car and train in the light of recent price changes, qualified use may be made of the presumably conservative automobile cost figures supplied by the American Automobile Association. It estimates that the cars built since the war cost 3.5 cents per mile to operate, plus $1.30 per day for the cost of ownership (depreciation, license fees, insurance, etc.). Thus, as indicated in Table I, the 602-mi. round-trip journey between Chicago and St. Louis, Mo., would cost a motorist traveling alone approximately $23.66. By coach round-trip the cost would be $13.40 (exclusive of tax), and by Pullman in a lower berth it would be $24.05. Each additional car passenger cuts the per capita automobile cost decidedly in favor of that mode of travel.

Despite recent fare increases, and excluding the 15 per cent transportation tax, passenger fares are generally no more, and in many instances are actually less, than those which were in effect during many years prior to 1936. Moreover, railroad passengers today enjoy, at lower basic rates, conveniences and services unknown when fares were higher.

In a recent decision authorizing higher passenger fares, the I.C.C. observed that "the approved rates will be relatively low in relation to the level of the railroads' increased expenses; various items in the traveler's budget, such as food and lodging; and the price of the private automobile, fuel, repairs and parking fees."

This is putting it mildly, as reference to the accompanying chart will show. Since 1939—the most recent "normal" prewar year—the U. S. Department of Labor's price index of consumers' goods and services has risen 70 per cent (first six months, 1948). In contrast, the average fare per passenger-mile in sleeping and parlor cars increased only about 27 per cent and, in coaches, about 31 per cent. This chart shows graphically that the railroads are "pikers" when compared with other businesses for matching the general rise in charges.

While it is true that the railroads have increased their charges justifiably and to a lesser extent than other segments of the economy which are important to basic living, they cannot ignore subsidized transport rivals which put a very definite ceiling on the level of railroad fares. In short, while the railroads may be right, they could become "just as dead as if they were wrong." Others means of transport have so far managed to get by with lesser fare increases percentagewise over prewar levels than have the railroads—a cold cruel fact which forces the railroads to find a delicate balance between increased fares to cover increased costs, on the one hand, and loss of overall revenues by reason of diversion to competing carriers on the other.



Courtesy Statistical Bureau—Western Lines

Revenue per passenger-mile in coaches and in sleeping and parlor cars compared with consumers' price index (cost of living)

Small-lot orders limit the output of any car-building shop

EFFORTS ARE BEING MADE TO EDU

Both railroads and car builders lose with the many types and minor differences in design which retard shop production while increasing unit costs

The present multitudinous variety of passenger-car types and design details is hampering shop production and increasing unit car costs to such an extent that both railroads and car builders recognize the necessity of doing something about it. The public also is directly interested, because excessive individualistic treatment of passenger-car details, while primarily designed to please the public, inevitably reduces the number of modern cars which railroads can acquire for a given expenditure and delays the delivery of those cars which are ordered.

Many Small-Lot Orders

Looking to the prompt and at least partial solution of this problem, individual car builders are now endeavoring to develop designs of passenger cars made up of a maximum number of interchangeable units which can be manufactured and installed in cars at lower cost than when the cars are custom-built throughout. The Association of American Railroads' Mechanical Division committee on car construction is also studying the subject with a view to finding out what can be done to standardize car details without obstructing progress and thus reduce unit costs and speed up deliveries. This A.A.R. study is also being extended into the field of freight cars where many apparently insignificant differences in dimensions, for example, still exist in spite of strenuous past efforts to standardize fundamentals.

The case for less diversification and more standardization in passenger-car design and construction was put in recent months by the chief engineer of one of the major car builders in a published article* which was widely read and favorably commented on by railroad men and car builders alike. Many important facts brought out in the article are presented in the following paragraphs, some of which are quoted in full from the original discussion.

At one of the plants of this company, orders for 85 lots of passenger-train cars, placed since World War II, represented 397 cars, or an average of less than five cars per lot. Only one lot had as many as 20 cars and 18 orders were for one car each. Eighteen different railroads were represented and the cars ordered include 22 standard A.A.R. classifications, such as baggage, mail, coach, parlor, dormitory, lounge, sleeping, observation, etc. The table shows the diversity in sleeping-car arrangement alone.

Eight different varieties of car-body shell framing are

*Allen W. Clarke, chief engineer, American Car & Foundry Co., in the July-August, 1948, issue of "Wheels," published by that company.

There are many minor differences in dining-car kitchen arrangement

DE TO REDUCE VARIETY IN PASSENGER-CAR DESIGN

specified, including carbon steel with welded frame and riveted sheets, low-alloy high-tensile steel with spot-welded sheets, low-alloy high-tensile steel with riveted sheets, low-alloy high-tensile steel with stainless fluted exterior, low-alloy high-tensile steel with riveted aluminum sheets, aluminum with riveted aluminum sheets, aluminum with fluted anodized aluminum exterior, and steel underframe with aluminum superstructure.

In a few instances two lots follow the same floor plan, but in only two cases do as many as three lots have the same floor plan. Even in cars with the same floor plan, important differences in major specialties, such as air-conditioning equipment and electric generators, necessitate variations in construction, thus largely offsetting advantages of the original similarity.

Wide variations in interior decoration range from simple designs, using color treatment only for desired effects, to highly elaborate details, including wood carvings, metal etchings, panel effects and edge-lighted panels. Framing modifications are required to accommodate many of these decorative features.

Unnecessary variety in passenger-car design, in conjunction with small-lot ordering, has the effect of appreciably boosting engineering costs as well as production costs. For example, a complete set of drawings and material specifications, required for each lot of cars, includes 500 to 900 drawings and 300 to 600 sheets of requisitions. The cost of engineering per lot is about the same, regardless of the number of cars in the lot. As a result, the engineering cost per car is relatively high on small-lot orders.

The vast amount of detail involved in designing

A Partial List of Sleeping-Car Types Ordered From One Car Builder

22-Roomette
21-Roomette
18-Roomette
14-Roomette; 4-bedroom
14-Roomette; 2 drawing room
12-Roomette; 4 bedroom
10-Roomette; 6-bedroom
10-Roomette; 3-bedroom; 2-compartment
8-Roomette; 2-bedroom; 2-comp.; 4-section
6-Roomette; 3-bedroom; 8-duplex roomette; 1-comp.
6-Roomette; 4-bedroom; 6-section
24-Duplex roomette
16-Duplex roomette; 4-bedroom
8-Duplex roomette; 4-bedroom; 4-section
12-Bedroom
6-Bedroom; bar-lounge
6-Bedroom; buffet-lounge
4-Bedroom; 1-compartment; observation-lounge
4-Bedroom; 4-compartment; 2-drawing room
2-Bedroom; 1-drawing room; observation-lounge
1-Bedroom; 4-drawing room; observation-lounge

modern passenger cars under present conditions puts a great strain on the engineering staffs of car builders who find it increasingly difficult to maintain adequate forces of trained personnel for this exacting work. The time involved in preparing the great number of detail drawings and specifications required also is an important factor and, in conjunction with material deliveries, usually determines the date when shop forces can start building the cars.

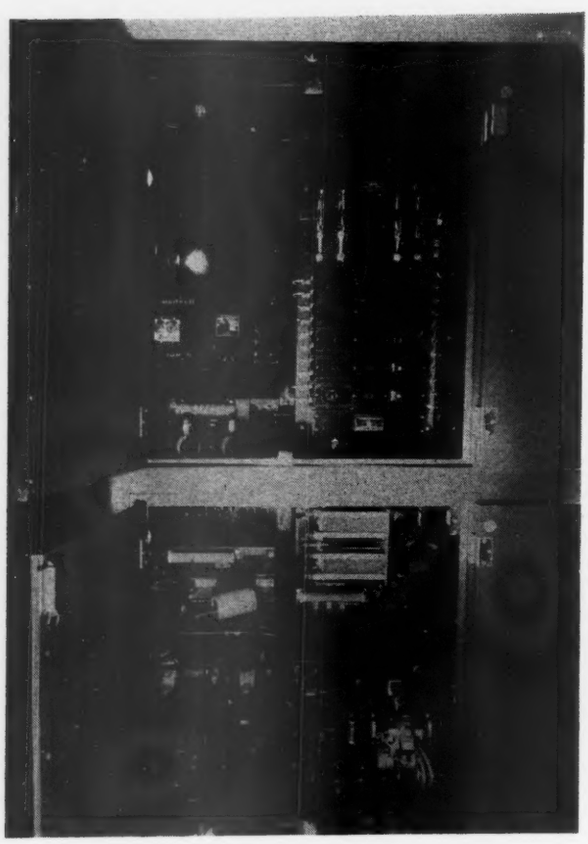
From a production standpoint, the conditions mentioned increase direct labor and retard shop output. The first car of a lot requires more direct labor and time for building than subsequent cars, because shop men must familiarize themselves with construction details and work out methods and procedures. Hence the desirability of minimizing small-lot orders and making the runs on one type of car as long as possible.

Railroad Needs Differ

Doubtless, considerable variation always will be required in the design and building of railway passenger cars. Railroads must of necessity consider their own individual operating and traffic requirements. The coach intended for high-density, short-haul traffic, for example, is not suitable for long overnight trips on lines having relatively low traffic density. Other traffic conditions require equipment which is specialized to a certain degree.

"Within these limitations, however [writes Mr. Clarke], considerable standardization is possible and becoming imperative if the railroads are to keep their maintenance costs and inventories within reason and at the same time further increase joint operations and interchange of passenger cars with other roads. These considerations, together with substantial reductions in first cost and increased production of new cars, are certainly adequate reasons for furthering standardization of passenger cars to the maximum extent possible.

"Some progress in this direction has already been made. Practically all of the postwar cars are 85 ft. long over coupler pulling faces. The A.A.R. construction specification was advanced to standard in 1945 and is generally accepted by the railroads and car builders as representing the minimum for strength requirements. The A.A.R. cross-section contour for passenger cars was adopted as standard in 1940. Battery-box dimsions and some details were standardized in 1945. Most of the railroads are accepting car builders' standards of body framing construction which meet or exceed the requirements of the A.A.R. specifications.



More nearly standardized air-conditioning and switch panels would help

Costs Can Be Cut

"But there is more to be done, without in any way stifling progress and design initiative or interfering with the efficient handling of passenger traffic by the railroads.

"For instance, cars are bought frequently in train consists for a particular run, the railroad purchasing one or two such trains at a time. Such a train may be made up of a baggage-express car, combination baggage and coach, two coaches, diner, parlor car and lounge-observation car—six separate lots or types representing a total of only seven cars. This may be necessary in some cases, but considerable savings could be achieved if the roads would purchase their requirements for one or more types of cars each year over a period of years, eventually equipping all important trains with modern streamline cars.

"It is also felt that many of the variations in arrangements and details on different railroads result from fancied rather than real reasons. As an example, it is hard to understand why there should be such an infinite variety in dining-car kitchen interiors and equipment. Three or four standard arrangements of different capacities should be sufficient. Also the great variety of sleeping-car arrangements which has developed since the railroads started purchasing their own sleepers does not seem to be justified by any corresponding differences in passenger traffic demands. Many other similar examples could be cited."

In view of the general agreement that excessive individuality in passenger-car design, structural details and equipment is penalizing railroads by increasing unit car costs and retarding deliveries, the steps now being taken both by railroads and car builders, as outlined in the opening paragraphs of this article, are a hopeful augury for some definite improvement in conditions. Individual railroads can help by supporting the A.A.R. and the car builders in their constructive joint efforts to reduce the multiplicity of designs and increase, within reasonable limits, the standardization of passenger-car equipment.

REPORT ON PULLMAN

By C. R. HARDING
President, The Pullman Company

The Author

Railroad-owned sleeping car company ready with uniform service contract — Costs cut $10 million a year — Rebuilding room cars from old open-section units

In working on a plan for the future of the Pullman Company, it early became apparent that there is no problem so far as service is concerned. All of the features of traditional Pullman service are being administered by a well-trained and efficient organization to a degree of expertness that, in my opinion, could not be duplicated by a number of separate sleeping car organizations operating independently of each other.

Thus, the only real problem with which we are confronted is that involving the financial arrangement best suited to fit that service. Heretofore, Pullman has allocated the costs of conducting its business on a car days' service basis. This general averaging of the pool of expenses among all of the railroads on which Pullman service is operated has been unsatisfactory to some roads and, in an attempt to arrive at a plan of expense allocation that would be more equitable and acceptable to all of our railroad customers, Coverdale & Colpitts, an outstanding engineering research organization, was retained last February to make an independent detailed analysis of Pullman operating costs and recommend to Pullman and the railroads a plan and basic formula for a service-pricing schedule. This special study has now been completed and copies have been submitted to the railroads for their information, study and consideration. There has also been submitted to the railroads a tentative plan for the future of Pullman, together with a draft of a new uniform service contract based upon the service-pricing formula recommended by Coverdale & Colpitts.

Meanwhile, on the possibility that such a plan may not be entirely acceptable to the railroads, the Pullman management is working upon, and will be prepared to offer, an alternate plan designed to remove any inequities that may now exist.

Economies $10 Million a Year

A year ago there was imperative necessity, if Pullman were to remain solvent, of substantially reducing the expense of conducting the business, without impairing the service to the railroads and the public or reducing our service standards. After thorough study and cooperative, intelligent consideration by our officers and department heads, we planned and developed an intensive "economy drive." A fundamental and indispensable condition was that any reduction in personnel or revision of practices and procedures must be accomplished without impairing the service.

Furthermore, this "economy drive" had to be carried on in the face of a declining volume of traffic, rising costs and increasing sales resistance by consumers generally—and especially by customers of service agencies.

The result to date has been a reduction in operating costs approximating $10 million a year. This has been accomplished by the consolidation of shop and yard maintenance under the jurisdiction of one department head, with a resultant streamlining of cleaning, maintenance and related activities; simplification of shop practices; and streamlining of the accounting and financial departments. Through these activities the payroll was reduced by some 3,000 employees.

These economies were offset in part by increased wages and material costs. However, the savings in the cost of conducting the business exceeded the increased wage and material costs, and for the first eight months of 1948, at the higher wage rates, operating expenses were $2,472,000 less than in the corresponding eight months of 1947.

Air Getting a Bigger Slice

As a result of the "economy drive" and despite a wage increase granted to conductors, by November, 1947, the operation of the business was on the profit side of the ledger. Subsequently, we found it necessary to apply for and received a further increase in room rates, resulting in an estimated increase in revenue of approximately $3 million a year.

Pullman sleeping car service derives its patronage from the first-class travel market, where in recent years the competition has been keen, spirited and intelligent. Improved, modern railroad coach trains, bus lines and the private automobile exert a compelling influence in this market, but the domestic air lines are Pullman's chief competitor. Not only that, but the basic fact is that the total first-class trans-

Pullman is currently rebuilding four cars a month in its shops, transforming old open-section sleeping cars into enclosed space units containing 12 roomettes, 3 double-bedrooms and 2 single-bedrooms, called the "Elm" type. The interior shown here is of one car remodeled in 1947, and differs somewhat from the 20 cars programmed for 1948 and 1949

portation market itself has fallen off drastically. From 1945 to 1947, this market dropped 39 per cent—from 30.3 billion passenger-miles to 18.4 billion.

In 1945 domestic trunk-line air passenger-miles were 11.11 per cent of all first-class transportation; in 1946, 23.1 per cent; in 1947, 33.1 per cent; and during the first four months of 1948, the ratio of air travel to the total first-class movement hit an all-time record high of 43.13 per cent.

It may be that this penetration of first-class rail travel by air lines is approaching a limit, if this limit has not already been reached, but whether this is so or not, air line competition is a factor which must be weighed carefully in the study and consideration of any further increase in sleeping car rates. I am well aware that the domestic air lines are having their own troubles, and that for a number of months many of them have been operating at substantial losses, but they provide an agency of transportation which is and will continue to be an important participant in the first-class travel market.

Another factor which has had a marked effect on our business was the failure this summer of vacation and tourist travel to reach the volume which last winter and spring was so hopefully anticipated. True, we still had an increase in total revenue due to the increase in our rates, which for the seven months ended July 31, 1948, amounted to 4.7 per cent, but we had a decreased traffic volume of approximately 11 per cent.

Advertising to Be Continued

While we are continuing our efforts to reduce costs, we must also continue to promote and attract patronage to sleeping cars. So, while the budget was somewhat reduced, we have continued our advertising campaign and related activities in 1948, including an exhibit of sleeping car accommodations at the Chicago Railroad Fair. This exhibit has attracted a large attendance and has generally been regarded as one of the most colorful, informative and educational exhibits at the fair. We are proposing to continue our advertising in 1949, and a budget for the program was approved by the executive committee of our directors in September. There is no yardstick by which we can accurately measure the effectiveness of our advertising. But, may I modestly add, under the most generally accepted method now available—the Starch Rating Service—Pullman advertising in 1948 topped in observation and readership all other transportation advertising, as it has for the past several years.

We have continued our Service Conferences with our operating personnel in scores of meetings throughout the country. These have produced improvements in service standards, better performance by car service employees and a strengthening of employee morale. In order to keep the railroads informed of our service objectives and methods of attaining them, railroad officers were invited to these conferences, many of whom participated and later commented most favorably upon them.

The Pullman management has also had under way a complete survey of present and probable long-range requirements of a sleeping car fleet, which will include plans and recommendations for modernization and continued use of suitable cars of the present fleet until

other equipment becomes available. A preliminary report on this study has been completed by our operating department and is now being considered by the management.

Actual requests of the railroads for cars for regular line, overflow and special service during the past year were beyond our capacity to meet. The most acute shortage was in room cars. Our fleet was woefully short of this class of equipment, so much so that we had to press into service 43 non-air conditioned room cars during the winter seasons 1946-1947 and 1947-1948. Even this expedient did not begin to meet the demand.

Individual railroads started, in November, 1943, to order from the car builders new sleeping cars for their own account. These orders now total 1,299 cars, 297 of which had been completed, leased to Pullman and placed in service as of October 27, 1948.

Remodeling of Cars

In 1947 four 12-section, 1-drawing room cars were remodeled by Pullman to include 12 roomettes, 1 drawing room, 1 double bedroom, and 2 single bedrooms. These cars were well received by the railroads and the public, and the remodeling of 20 additional cars has been authorized. This program is now under way in our own repair shops at the rate of four cars per month. Nine of the cars have been delivered. Their floor plan, which we have termed the "Elm" type, differs slightly from that of the first four cars, as it provides 12 roomettes, 3 double bedrooms and 2 single bedrooms. Two of the three double bedrooms may be thrown en suite as a drawing room, and may be sold at the same tariff rate as the latter. These cars have all "high speed betterments" and can be used as relief cars on any train in the country.

The railroads generally think well of them, and one company has under consideration a program calling for conversion of a number of cars to this plan in a commercial car-building plant. In addition, a number of other roads have requested Pullman to remodel "Elm" cars for regular service on their lines, but under present conditions we have been compelled to advise that the limited capacity of our repair shops must be devoted to remodeling cars for the Pullman pool for an indefinite period.

Another type of car needed to cope with the competitive situation and not adequately provided for in the new car-building program of the railroads, is a car containing a few open sections, in addition to roomettes and bedrooms. We have designed a floor plan to meet this situation.

We are also giving study and consideration to a plan for a modernized car that will meet the requirements of numerous strictly overnight or "policy" lines, yet which can be converted from existing open-section sleeping cars at low cost. Consideration is also being given to requirements for additional bedroom-buffet-lounge cars and some tourist cars.

We have also prepared tentative specifications for *new* sleeping cars of the various plans and capacities mentioned. However it is our present view that definite recommendations should not be made as to cars that may later be ordered, until we have acquired more experience with the relative performance and maintenance costs of the different types of equipment and appliances on the new cars now being delivered. The equipment, accessories and facilities of the sleeping cars ordered by the different roads vary a great deal.

Many Kinds of Equipment

Because of the many different kinds of equipment installed in the new railroad-owned sleeping cars, Pullman must purchase and carry in stock a wide variety of replacement parts. Our maintenance men must be taught how to care for all of these types and the car employees trained in the operation of varying control mechanisms.

During the year, as the result of a suggestion made by a member of the Railroad Advisory Committee, we concluded that closer correlation between local railroad and Pullman activities, particularly in the maintenance and supply departments, would be beneficial to the interests of both parties. We, therefore, suggested to the operating vice-presidents of a number of roads that joint Railroad-Pullman committees be delegated to investigate Pullman's activities, practices and set-ups at each point on their roads where Pullman forces are stationed. The Pullman delegation in each case is headed by the zone superintendent. The joint committees are expected to determine the extent to which supplies and materials may be exchanged by the two parties to mutual advantage and, further, to investigate thoroughly the various practices followed by Pullman in cleaning cars, maintenance of air conditioning, electrical equipment and other facilities, as well as the efficiency of Pullman's methods of alloting and controlling the time for the various operations, all with a view of making any suggestions that occur to them that may increase our overall efficiency and effect economies.

Mutually beneficial results have been obtained from the joint surveys that have been completed or that are still in progress on eight important railroads. It is contemplated that similar surveys will ultimately be conducted on all of the roads with which Pullman has operating agreements.

A favorable side result to Pullman on the surveys so far conducted has been the practically unanimous opinion expressed by railroad representatives that Pullman's maintenance and supply operations are conducted with a high degree of efficiency. These expressions were confirmed by the fact that suggestions as to changes in maintenance practices related only to minor details.

Sees Sound Plan

I am more than hopeful that we will agree upon a sound plan that will provide for the continued conduct of the business by Pullman with its thoroughly trained and efficient organization, including all of the services which it has traditionally performed. I am firmly convinced that any other method of conducting the business would not be in the interest of the railroads, generally or individually, or furnish that type and standard of service which the public not only is entitled to demand, but to receive.

WHAT IS BEING DONE ELECTRICALLY

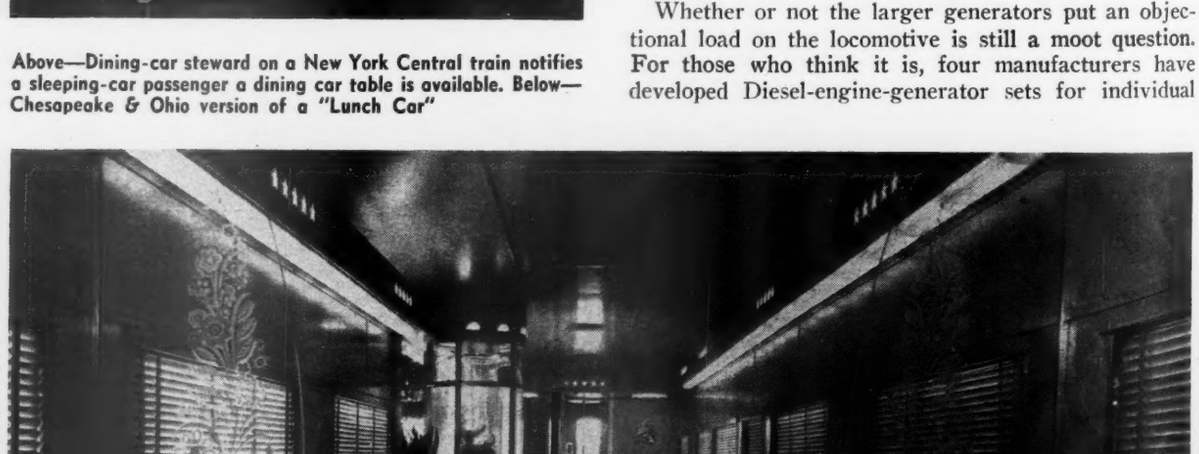
Electrical equipment now provides passenger trains with services available in few fine hotels

Above—Dining-car steward on a New York Central train notifies a sleeping-car passenger a dining car table is available. Below—Chesapeake & Ohio version of a "Lunch Car"

Electrical equipment for passenger cars now receiving special attention includes axle generators and engine-driven generators, provision of power for the complete electrification of diners, air-conditioning controls, filters, sealed units for air conditioning and mechanical refrigeration, standby power, increased use of lighting for decoration as well as illumination, a new type of storage battery, radio telephone service, intercommunicating telephones and public address systems.

Power requirements for main-line passenger trains have so increased that the 20/25-kw. axle generators generally applied in recent years are not large enough to meet the load demands of some cars. A number of new cars are now being equipped with 30/35-kw. generators and some cars will have two 25-kw. axle generators. Precooling and other power demands in yards and terminals make large demands on batteries which now must operate on 3- and 4-hour, rather than on 8-hour ratings. The result is that batteries seldom start a run fully charged and must be replenished on the run by the axle generator. To relieve this condition, 25-hp., instead of 15-hp., standby motors are used on some axle m.g. sets. Also new yard and terminal power facilities have been installed and are being studied.

Whether or not the larger generators put an objectional load on the locomotive is still a moot question. For those who think it is, four manufacturers have developed Diesel-engine-generator sets for individual



car mounting. Three of these sets develop from 25 kw. to 40 kw. of three-phase, 220-volt, 60-cycle power, with means for producing 115-volt a.c. power for lighting and appliances, and one will also generate 2 or 3 kw. of d.c. power for battery charging. It is possible to connect a number of such a.c. generators in parallel through a train line, thus providing for a possible machine failure. This also makes possible the removal of some of the power plants for servicing at times of the year when the load is light. Tests indicate that operating costs of such sets are low, but no data are yet available including costs of periodic overhaul.

Nickel-cadmium storage batteries are being tried in passenger car service. In one application, two 88-cell, 115-volt sets, rated 360 amp.-hr., were operated for a period of six months with 20/25-kw. axle generators. These were removed for redesign of trays and cans, and recently two more sets were placed in operation. The committee on car electrical equipment of the Association of American Railroads reports on these batteries as follows: "With this type of battery, the evaporation of water in the cells appears to be less rapid than with other types of batteries. There is no information available on this type of battery for 32-volt and 64-volt service that will meet standard A.A.R. specifications."

All-Electric Diners

Complete electric service on diners, including cooking, is being studied intensively. Cooking is done electrically on the "Train of Tomorrow," and an all-electric diner is undergoing development. A recent study of the power requirements shows a connected load of 67 kw. for electrical applications, and indicates that an average load of 49.9 kw. may be expected when the car is in service. These loads do not include hot water heating at approximately 20 kw. nor car heating at approximately 45 kw., which can be obtained from a combination of electric heat and reclaimed waste heat, if Diesel alternators are used.

The present designs and plans for cooking are based on resistance-type heating elements. Equipment is also available for high-frequency, high-speed cooking and it appears that infra-red heat for cooking will also be given consideration. There appears to be little difference in the load demand for resistance and high-frequency cooking equipment.

Mechanical refrigeration for diners has been found to be a real asset, and it appears probable that it will continue to replace ice.

Lighting

The trend in lighting is constantly toward more fluorescent. All lighting in the cars of the New York Central's new "Century," recently placed in service, is fluorescent, except for small lights in lockers and refrigerators. These fluorescent lights operate from a source of 64-volt d.c. power. On other railroads, fluorescent lights used in train service operate on alternating current. In nearly all cases, this is 115-volt power obtained through a converter or inverter from a 32-, 64- or 110-volt d.c. power source.

The A. A. R. committee on car electrical equipment reports that "A so-called 'Warm Tone' fluorescent lamp (3,000-deg.) hot cathode, has been developed for installations where incandescent lamps (2,800-deg.) are also used. These lamps, if used without the incandescent type, produce some objectionable results, and they are under further development. The use of the Circline lamp is reported with few exceptions to have not been extended beyond table and floor lamps."

Air Conditioning

In the field of air conditioning, special attention is being given to improved controls. Three of the most recently developed types are described in the report of the A.A.R. committee on car air-conditioning equipment. One of these controls is based on a resistance-type thermostat which forms one leg of a Wheatstone bridge. Another employs finned radiation and a double-bulb, single-tube thermostat to maintain comfortable temperatures. A third is predicated on utilizing the overhead supply as the base heat and supplementing this with steps of floor heat as the outside temperature drops.

All of these controls function to control cooling as well as heating, and in all cases the compressor runs continuously in hot weather, and the cooling effect is adjusted to suit the demand either by varying the speed of the compressor or by unloading compressor cylinders. According to the report, both methods are in general use and give acceptable service.

Hermetically sealed refrigeration units for cooling drinking water are now available and are being used successfully for supplying circulating drinking water to individual taps in room cars. A system of passenger-car air conditioning also has been developed which employs two 5-hp. hermetically sealed compressor units. These units are supplied from a source of 220-volt, 3-phase, 60-cycle power.

Communication Service

Several railroads have now installed radio telephone service on some of their trains. There is a telephone and an operator on the train, a radio link serving to connect the user on the moving train with the Bell system. Charges range from 30 cents, for the local area in which the train is running, to daytime person-to-person long-distance phone rates.

The development of a standard communication plug and receptacle for mounting over the car vestibule has stimulated the use of intercommunicating telephones, public address systems, and the distribution through the train of radio broadcasts and wire-recorded music. The telephone and address system provides a number of services, such as arranging for dining-car seating, paging recipients of radio telephone calls, making announcements, and distribution of entertainment programs. Some coaches have been equipped with pillow speakers placed inside the headrest of the seat. These permit individual passengers to listen to programs without disturbance to others.

For room cars, there are communication systems with selector switches, which permit the passenger to select one of several radio or recorded programs. A flashing light indicates a forthcoming announcement.

HOW MUCH IS CURVE REDUCTION WORTH?

Progress is being made by the railroads in improving their lines for passenger service—Many factors are involved in determining the economic justification for such projects

Modern grading equipment has been an important factor in making possible line-change projects requiring the movement of large amounts of material. The equipment shown here is working on a line-relocation project on the Northern Pacific

Some roads have almost reached the point in their line-improvement efforts in behalf of passenger service where further work will be of a relatively minor nature or confined to isolated locations. In contrast, there are others on which large amounts of work remain to be done, requiring years to finish.

These and many other interesting facts regarding present and future programs of curve reduction were unearthed in a study made especially to obtain information for this article, which included interviews with a number of top-ranking engineering officers. With the understanding that they would not be quoted, these officers spoke frankly, and frequently at considerable length, regarding their present and future plans for line improvements. Also, expressions of opinion were obtained regarding such matters as the amount of money a road is justified in spending in obtaining specific objectives and whether present high costs of construction have caused line-improvement programs to be pared or shelved.

Current Activity Varies

There is wide disparity between different roads in the volume of line-improvement work now under way and in the amount of such work planned for the future. Seventy-five per cent of the roads involved in the study now have such projects under way, ranging from a single job on one road to three extensive undertakings at scattered locations on another.

On the basis of the interviews it is possible to make some interesting observations regarding the thinking on different roads with reference to line improvements in behalf of passenger service. One of these is that the roads most active in progressing such projects are nearly always those that are at least at a momentary disadvantage in meeting the schedules of competing lines. Conversely, companies occupying a favorable position in this respect are apt to exhibit much less interest in large-scale curve-reduction work. On one line that is doing little or no curve work passenger service is operated at a loss, and the position is taken that, under these circumstances, large expenditures to improve that service are not justified.

Another fact brought out is that the high costs of construction are not having a serious effect on line-improvement work. On those roads with curve work to be done the general attitude seems to be to go

Above—This is one of 17 curves eliminated in a single project on a main line of the Chesapeake & Ohio. Below — Bridge work under way on a relocated section of the Southern Pacific in Texas. The old line can be seen in upper left corner

Relocated line, with new station, on the Chicago, Rock Island & Pacific, constructed as part of an extensive line-improvement program between Chicago and Kansas City

ahead to the extent that available funds will permit. Obviously, this means that more work would be done if costs were less. While there are cases in which individual projects have been canceled or postponed because costs were considered out of line, there seems to be no general tendency to put off construction projects until a time when costs have come down.

Low-Cost Jobs Done First

Another pertinent observation is that, as a group, the larger roads, as a result of the efforts of past years, have made substantial progress toward bringing curvature down to a point where it will constitute little or no restriction on high-speed passenger service. Generally the aim is to get curves down to a maximum of one degree, and to reduce them even further if this can be done without excessive cost. In fact, there are those who hold that curve-reduction projects in high-speed territory are not worth while unless the curvature can be brought down to one degree or less.

It was to be expected that, in preparing their lines for high-speed operation, the roads would give first attention to those locations on main routes where the greatest benefits would be obtained from a given expenditure. The result is that on most roads these low-cost locations have long since been corrected, and what remain are places where projects to reduce the curvature to a desirable maximum could be carried out only at a much greater cost. Such situations are common in rugged or mountainous country or along rivers or coast lines. Many curve-reduction and line-improvement projects have been carried out in such territory. An example is the $5,500,000 undertaking on the Mountain subdivision of the Chesapeake & Ohio. An important factor in bringing the cost of such undertakings within a practicable range is the highly efficient equipment that is available today for moving earth. Without such equipment many streamliners would still be finding it necessary to reduce speeds on curves that have long since been eased or eliminated.

Excessive curvature is also found frequently where lines pass through cities. If high-speed trains must stop, or slow down by law, at such places, there is, of course, little to gain by reducing the curvature. The prevailing opinion regarding these points of high-cost curve reduction is that, except where other considerations apply, such as a need for separating grades, it is not to be expected that much will be done regarding them, at least in the foreseeable future.

Some Economic Considerations

The economic aspects of line improvements in the interest of better and faster passenger service have interesting implications. Most types of improvements to the fixed properties can be made to justify themselves on the basis of a tangible and substantial return on the investment. But this is not the case where improvements are made solely for the benefit of passenger service. Increased safety and comfort for passengers are intangibles that cannot be measured in dollars and cents. And on curve-reduction projects these considerations are generally considered to have at least as much weight as shortened schedules made possible by the greater permissible speed. In fact, it is not uncommon for curves to be reduced or eliminated solely for the purpose of promoting safety or comfort. An example is a recent project in which $2,500,000 was spent to reduce a curve of more than 7 deg. to 1 deg. 30 min. In this case the train time saved was so small as to be negligible.

A relocated section of line on the Atchison, Topeka & Santa Fe near Quinlan, Okla. The old roadbed is visible at right

Not infrequently, however, line-improvement programs involving entire territories are carried out with the objective, among other things, of effecting a substantial reduction in running time between distant terminals. There is, of course, no precise way of determining how much this reduction will mean in the way of increased business, but the roads pay dearly for the reduced time. As the result of one multi-million-dollar project the running time of one train was reduced slightly more than two hours, and the cost per minute of reduced time was about $115,000. In another project the running time of passenger trains was reduced 25 min. at a cost of $103,000 per minute saved, and in a third the cost of a two-hour reduction was approximately $46,000 a minute.

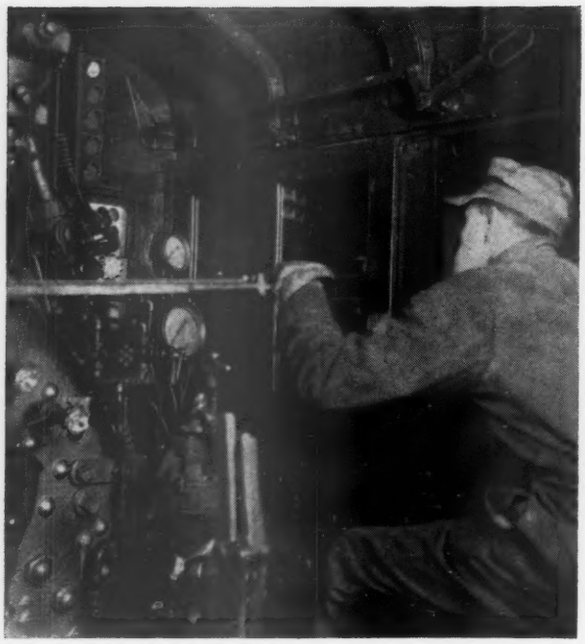
Tangible Benefits Too

In all of these projects the reduction of running time was only one of several considerations involved. In fact, this holds true for the great majority of line improvement projects. And some of these other considerations are such that their effect can be measured in the form of a tangible return on the investment. For instance, line improvement is frequently combined with a reduction in the ruling grade that may permit tonnage ratings for freight locomotives to be increased or pusher service to be eliminated. Also, where the line is shortened or the curves reduced, a corresponding reduction in maintenance costs is realized. Furthermore, where running time is lessened there may be a tangible saving in the wages of train crews.

In situations where line improvement work is carried out with better and faster passenger service primarily in mind, as where a railroad seeks to overcome handicaps that put it at a disadvantage with competing lines, the decision as to whether the required expenditure is justified is largely a matter of judgment. The engineering department makes the plans and estimates and determines the extent of the betterment in service that can be expected; then the traffic department and management must decide whether the advantages to be expected will justify the expenditures.

On the other hand, if the improvement will result in tangible savings, a definite return on the investment can be computed, which is frequently sufficient to justify the expenditure as a business investment, exclusive of the intangible benefits, such as greater comfort and safety. One company, for instance, considers that an improvement is a sound investment if it will produce a return of about five per cent. This requirement, incidentally, is somewhat reduced from what it was a few years ago when interest rates generally were higher. All the companies contacted in the survey finance their line-improvement projects from earnings, and doubtless this applies to most other roads.

Attention has been focused in this article on line-improvement work because of its close relationship with high-speed passenger service. However, other activities involving the fixed properties are at least of equal importance in their effect on passenger service and on the traveling public, and are receiving their share of attention today. Most railroads, for instance, are fully aware of the value of modern, attractive passenger stations, and many are active in bringing such structures up to date as fast as conditions will permit. Also, much of the money that goes into the tracks and structures in the form of maintenance and improvements is spent with an eye to increased safety and comfort for passengers, as well as higher speeds.



Left—With train stop, cab signaling or train control now in service on a total of 20,747 track miles, one of these three forms of protection most likely will be added within the next five years on about 23,500 track miles, where trains are operated at 80 m.p.h. or more—Note the cab signal (upper left)

Facing page (left)—Automatic block signaling is now in service on 105,335 track miles. This system will be installed during the next five years on approximately 22,000 additional track miles

Facing page (right)—With centralized traffic control, one man can control the power switches and signals in an extended territory, in some instances 100 to 150 mi.

SIGNALS ADD TO PASSENGERS' SAFETY

Modern signaling systems reduce the number and duration of train stops, and the various forms of new devices detect special hazards

As a part of an overall program of improving tracks and acquiring modern trains with high-speed locomotives, many railroads are now expanding their use of modern signaling. These installations not only improve train safety but also facilitate utilizing the new equipment and tracks at the speeds for which they were designed. Safety, prevention of collisions, is a basic purpose of all signaling. In addition, modern signaling, as now being installed on numerous railroads, includes protection against many other forms of hazard. Furthermore, these new signaling projects are a means of eliminating numerous train stops and delays, thereby aiding to reduce overall schedules and to keep trains on time.

A Higher Percentage of Safety

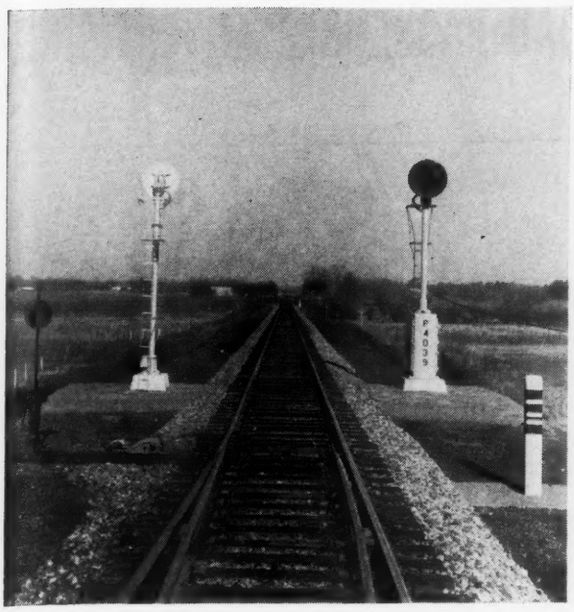
The basic element of the automatic controls of signals is the track circuit, by means of which signals are controlled to prevent collisions between trains as well as to detect such hazards as broken rails, misplaced switch points and cars on turnouts that may foul the main track. This track circuit feature is included in different forms of signaling installed extensively during the past year on a total of 3,808 mi. of track. As of January 1, 1947, such systems were in service on 115,305 mi. of track. In 1947 and up to now in 1948, the railroads have installed these modern signaling systems just about as fast as the supply of materials and the availability of construction forces would permit.

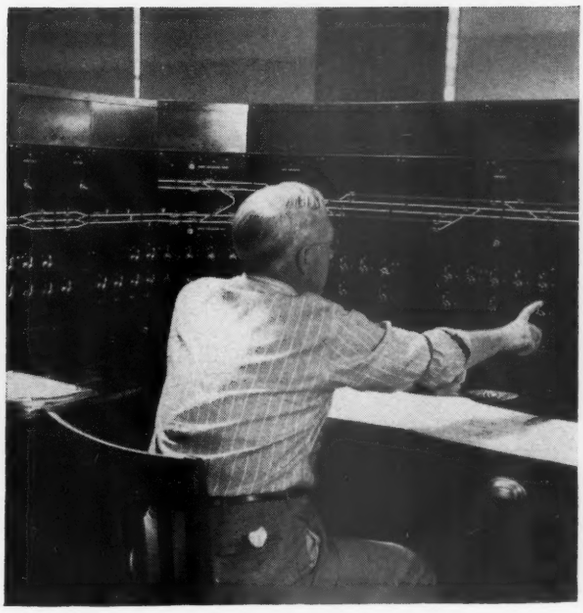
In addition to the conventional practice of controlling signals automatically to prevent collisions and to detect broken rails, some roads are now incorporating in their signal systems some of the devices available to detect: (1) equipment dragging from trains; (2) rock slides; (3) high water that may flood the tracks; (4) misplaced bridge spans; and (5) fire on wood trestles or in wood-lined tunnels. Also, an inventor has developed a device to detect broken flanges on car wheels.

Rock-slide detectors are a form of protection to avoid train accidents that otherwise may be caused if large rocks fall from cliffs onto the tracks. These detectors include special fences on tall poles along the track. When rocks strike the fences, controllers are operated, and signals are set to stop approaching trains.

One form of dragging-equipment detector includes cast-iron brackets mounted in the track just below the level of the top of the rails. Equipment hanging or dragging from a locomotive or car will break one of the brackets and thereby open a circuit which causes signals ahead of the train to display Stop aspects. These detectors are located in approach to switches and crossovers where the turnout rails might deflect the dragging equipment under the wheels, causing a derailment. Another form of dragging detector, announced by two manufacturers recently, consists of panels pivoted at the lower edge on a shaft across the track under the rail level. The top edge of the panel is level with the top of the rail. Equipment dragging from a train strikes the panel and rotates it on its shaft, thus opening circuits to control signals. Springs restore the panel to its normal position, ready for service again.

Where flash floods may occur in secondary rivers, perhaps causing damage to tracks unknown to any railroad employee, several railroads have installed special flood detectors. When water rises above a certain level, a float causes contacts to operate signals in





each direction to the Stop aspect. All of these special detector devices are an aid in improving the safety of operation of passenger trains.

Faster Than Train Orders

Centralized traffic control is a modern system which includes not only automatic block signal protection but also power switch machines and signals at sidings on an extended territory — in some instances a whole division of 100 to 150 mi. or more — all controlled from the dispatcher's office. The train movements are authorized directly by the aspects of the signals, rather than by the slower practice of using written train orders. The switches are operated by the power machines, thus eliminating the train stops and delays previously required to operate hand-throw switch stands. The dispatcher's control panel includes a track diagram with lamps which indicate the progress being made by trains, and from this information he can control the switches and signals to direct trains to meet with a minimum of time lost. Centralized traffic control, now in service on approximately 11,740 mi. of track, has been an important factor in reducing the overall schedules of through passenger trains.

Seeing and Hearing Signals

All forms of wayside signals, such as semaphore and light signals, display aspects which are plainly visible to enginemen. In addition, systems have been devised to project visible and audible aspects in the cabs of locomotives, and also to apply the air brakes automatically if the engineman does not take such action. Although such systems are not new, many railroads within the past year have taken a renewed interest in these forms of so-called additional protection.

One school of thought holds that a practicable form of additional protection is to warn the engineman by a whistle and lamp when he passes a signal displaying a restrictive aspect, as for example a red aspect indicating that the train should stop, or a yellow aspect indicating that the train is to stop at the next signal. If the engineman does not acknowledge the signal by operating a lever, the air brakes are applied automatically to stop the train. This procedure is exemplified on two railroads which use the intermittent inductive train-stop system — the New York Central System on 4,171 track miles and the Southern on 3,489 track miles.

On the other hand, several railroads, including the Pennsylvania, take the position that a signal should be displayed continuously in the cab of a locomotive, and also that if a train passes a signal displaying a restrictive aspect, the brakes should not be applied automatically, but rather that the engineman should apply the brakes himself after being warned by a change in the aspect of the cab signal and by the sounding of a special air whistle. The Pennsylvania has 3,608 track miles and 2,797 locomotives equipped with such a system of continuous cab signaling. Some roads have train-stop systems including not only continuous cab signaling but also automatic application of the brakes. Other roads, such as the Chicago & North Western, have train control which includes cab signaling and automatic application of brakes if a train exceeds certain speeds corresponding to ranges of signal aspects.

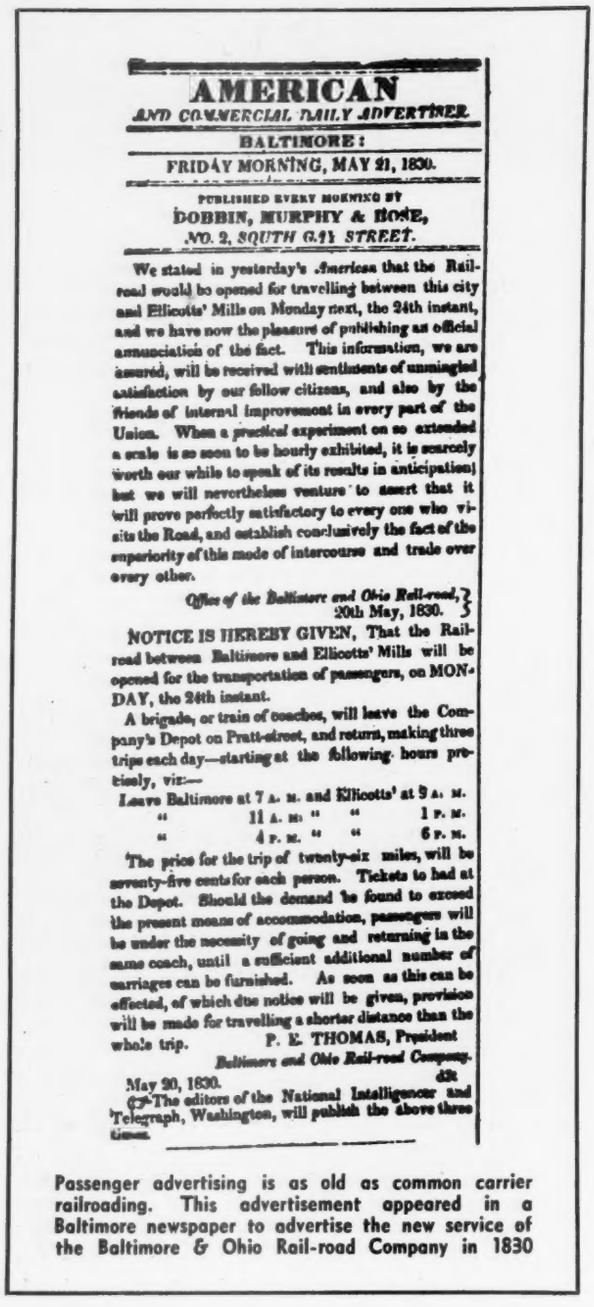
As of January 1, 1948, the railroads had protection in addition to wayside signals — such as intermittent train stop, cab signaling or train control — in service on a total of 20,747 track miles and on 10,717 locomotives. Within the past year, the Interstate Commerce Commission has ordered the roads to install one of these forms of additional protection in all territory where trains are operated at 80 m.p.h., or more — approximately 23,500 miles of track being involved — and these projects are to be scheduled for completion within about five years.

Thus, signaling of railroads to improve safety of passenger travel has made marked progress over the years, with much more scheduled for the years ahead.

The Author

RAILROAD PASSENGER ADVERTISING—

By JOSEPH J. FINN
Vice-President, Reincke, Meyer & Finn, Inc., Chicago



AMERICAN
AND COMMERCIAL DAILY ADVERTISER.

BALTIMORE:
FRIDAY MORNING, MAY 21, 1830.

PUBLISHED EVERY MORNING BY
DOBBIN, MURPHY & ROSE,
NO. 2, SOUTH GAY STREET.

We stated in yesterday's *American* that the Rail-road would be opened for travelling between this city and Ellicotts' Mills on Monday next, the 24th instant, and we have now the pleasure of publishing an official announciation of the fact. This information, we are assured, will be received with sentiments of unmingled satisfaction by our fellow citizens, and also by the friends of internal improvement in every part of the Union. When a *practical* experiment on so extended a scale is so soon to be hourly exhibited, it is scarcely worth our while to speak of its results in anticipation; but we will nevertheless venture to assert that it will prove perfectly satisfactory to every one who visits the Road, and establish conclusively the fact of the superiority of this mode of intercourse and trade over every other.

Office of the Baltimore and Ohio Rail-road,
20th May, 1830.

NOTICE IS HEREBY GIVEN, That the Rail-road between Baltimore and Ellicotts' Mills will be opened for the transportation of passengers, on MONDAY, the 24th instant.

A brigade, or train of coaches, will leave the Company's Depot on Pratt-street, and return, making three trips each day—starting at the following hours precisely, viz:—

Leave Baltimore at 7 A. M. and Ellicotts' at 9 A. M.
" 11 A. M. " " 1 P. M.
" 4 P. M. " " 6 P. M.

The price for the trip of twenty-six miles, will be seventy-five cents for each person. Tickets to had at the Depot. Should the demand be found to exceed the present means of accommodation, passengers will be under the necessity of going and returning in the same coach, until a sufficient additional number of carriages can be furnished. As soon as this can be effected, of which due notice will be given, provision will be made for travelling a shorter distance than the whole trip.

P. E. THOMAS, President
Baltimore and Ohio Rail-road Company.

May 20, 1830.

☞The editors of the National Intelligencer and Telegraph, Washington, will publish the above three times.

Passenger advertising is as old as common carrier railroading. This advertisement appeared in a Baltimore newspaper to advertise the new service of the Baltimore & Ohio Rail-road Company in 1830

The first railroad advertisement which has come to my attention was published by the Baltimore & Ohio in the Baltimore American and Commercial Advertiser on May 21, 1830. As the accompanying reproduction shows, it offered a 26-mi. trip from Baltimore to Ellicott's Mills for 75 cents, or approximately 3 cents a mile, which is the same as the basic coach rate charged in Eastern territory today.

This advertisement appeared in small type, similar to the news items in the adjoining columns of the periodicals of that day. Such notice forms became standard practice for early railroad advertisements.

In the years that followed, advertising continued to develop as a tool of railroad management, rapidly taking on the *functions* of present-day advertising, if not the *appearance*. Thus advertising was used to help raise the money and recruit the labor to build the railroads. After a railroad was built, its advertising announced and promoted service, just as it does today.

The next great epoch (after the early railroad-building days) was that in which energetic railroaders tackled—and whipped—the vast job of colonizing the West. Advertising in Europe, as well as in the eastern United States, helped carry out this project speedily, efficiently and economically.

A great personality of this era was George S. Harris, land commissioner of the Burlington & Missouri River (now Burlington System), who always tried to make sure that the settler and land buyer secured a square deal. He had a sense of humor, too. For example, in one letter he said that the land of northern Missouri was so rich and pliable that when a train turned over no one was hurt. In another letter, answering an inquiry from a doctor who noted the lack of illness in the territory, Harris adroitly stated, "People in this region are young and healthy—that is why obstetricians are in great demand."

In the 1870's the B. & M. R. alone had as many as 250 agents in the eastern part of the United States and in offices in England, Scotland, Sweden and Germany. Mr. Harris flooded Europe with hundreds of thousands of pamphlets printed in several languages to attract colonists. The record of these promotions, particularly by the western lines, is one of the great sagas of selling and advertising. Today, the descendants of these immigrants thank their grandfathers for their initiative in coming to America—and the land commissioners for their aggressiveness in selling these farmlands.

The colonization work of the railroads, the selling of lands and the great follow-through agricultural job they did (and are still doing) are all outstanding ac-

A QUICK REVIEW, 1830-1948

Right—The first postwar streamliner, the Burlington-Great Northern's "Empire Builder," was introduced with four-color, full-page ads which featured innovations in accommodations

It's Cool when it's Hot
WESTERN TRAINS NOW Air-Conditioned FRESH AS THE BREATH OF SPRING, While YOU TRAVEL, When YOU ARRIVE!
Amazing Low Fares
Your Dollar Goes Farther
See the Railroad Ticket Agent
All Expense Tours
TRAVEL to San Diego Expositions, California, American Rockies, National Parks, Pacific Northwest, Alaska, Southwest, Old Mexico, Texas Gulf Coast, Ozarks, North Woods and Lakes, Dude Ranches and Resorts of Every Character
BY TRAIN
WESTERN RAILROADS
COOL • CLEAN • DEPENDABLE • QUIET • SAFE

Above—In 1935 the western railroads initiated a joint program of travel promotion which featured air-conditioned equipment

World Premiere!
the New 20th Century Limited
New — from its streamlined Diesel to its raised "Lookout Lounge"...
NEW YORK CENTRAL

Right—The latest "new train" advertisement featured, in four colors, the New York Central's new "20th Century Limited"

complishments in advertising, salesmanship and sound railroad development. Although these early "super-salesmen" were wont to use glamorous and descriptive adjectives, without too close regard for their fitness to specific places, we must admire their agility and versatility, nevertheless.

From 1850, when the railroads attained a near monopoly of intercity passenger carriage, to 1920 there was little need for advertising of railroad passenger service *per se*. However, publications of the era show a goodly amount of unusual railroad advertising. Much of it was strictly competitive among roads, but, in addition, there were creative advertisements to "sell" people in general on going places and seeing the wonders of their own country. The period of 1900 to 1915 marked the flowering of slogans such as, "Let that foreign bubble burst—Come and see America First." This first appeared in an advertisement for a railroad which was almost without competition. Some time later it was identified as a dominant idea by James J. Hill and was adopted by his Great Northern. The New York Central's slogan "The Water Level Route" was also first used during this period.

For over 75 years, railroads have promoted the national parks and other great vacation areas. Yellowstone, the first national park, established in 1873, then Yosemite, Grand Canyon, Rocky Mountain, Glacier and others were first advertised and popularized by the railroads. Today the railroads still supply the major promotional activities for many of these areas, although their share of the total traffic to these areas has been exceeded by far by the private automobile.

The year 1920 marked the peak in the number of railroad passengers. Thereafter, paved highways took an increasing portion of passenger traffic from the rails. By 1933 railroads had left only one-third the passenger volume of 1920. Better and cheaper automobiles and good roads (financed in part by railroad taxes) built the new competition. The private automobile grew in importance as a competitor in spite of the depression and soon accounted for over 80 per cent of all inter-city travel.

Streamliners and Advertising

In advertising there is an axiom—*"A Good Product is Everything."* Something had to be done by the railroads. And something was done. In 1930 railroads began to air-condition their passenger-train cars. By 1935 the western lines had sufficient air-conditioned equipment on their principal trains to promote them in magazines and newspapers. One of their 1935 magazine advertisements is shown in these pages. The joint promotion was successful.

In 1934 the streamliner was born. The Union Pacific's distillate-powered, articulated "City of Salina" and the first Diesel-powered streamlined train—the Burlington's "Pioneer Zephyr"—immediately captured public approval and patronage. They have been followed by a fleet of fast and beautiful streamlined trains with new designs and new accommodations.

The war years 1941-45 halted passenger car construction. At the same time, the great load of war traffic increased rail passenger volume to unprecedented new highs. This state of affairs introduced new themes into advertising copy. The Office of Defense Transportation ruled out all promotional activities for passenger service, with a result that institutional and educational copy became the featured type of advertising. Today many of the basic experiments tried out during those war years are being continued.

In 1947 and 1948 the big advertising news concerns new trains and new-type accommodations being placed in service. The first postwar transcontinental streamliner—the Great Northern-Burlington "Empire Builder"—featured room accommodations for sleeping car passengers and new type "day-nite" chair cars for coach passengers which were given prominence in full-page introductory advertisements, one of which is reproduced herewith. The most recent "new train" copy was produced for the New York Central's new "20th Century Limited."

The postwar travel sensation, the dome car, conceived by Cy Osborn of Electro-Motive and first built into a stainless steel car by the Burlington in 1945, has captured the approval of passengers wherever shown, and has added a new note to railroad publicity. The General Motors "Train of Tomorrow," with "astra dome" cars, has toured the country in the past 18 months, giving millions an opportunity to see it. The Burlington's new "Twin Cities Zephyrs," the first complete "vista-dome" trains in revenue service, were inaugurated in December, 1947, with forceful and colorful advertising backing.

Themes for the Future

Railroad passenger advertising themes will undoubtedly continue to concentrate on new equipment, plus the basic service story of selling *railroad*—as opposed to rival—passenger transportation to vacationists and regular travelers.

The streamliner introduced new *showmanship* in publicity, public relations and advertising. Such events as dawn-to-dusk runs and unusual christening ceremonies have paid dividends in immediate acceptance by the traveling public. New trains, new ideas and new service features are recognized by travel-minded Americans as real news.

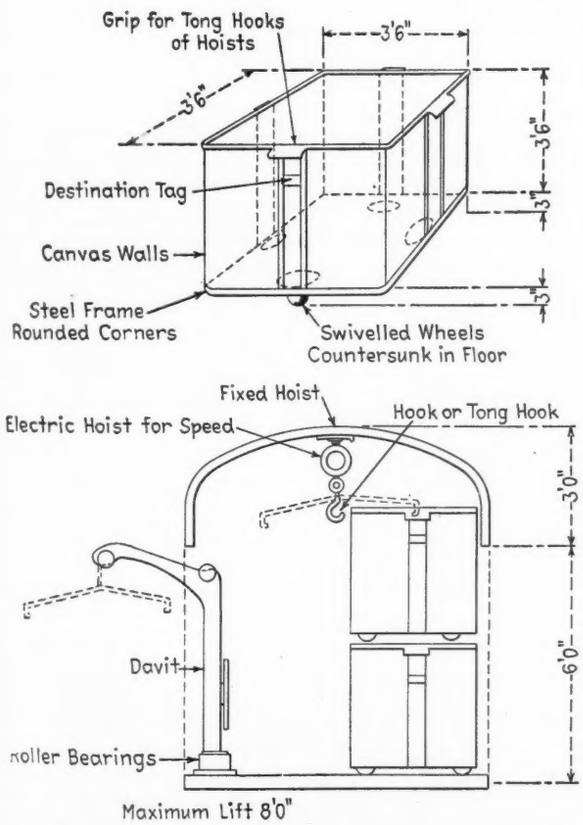
The Chicago Railroad Fair demonstrated that the public is keenly interested in railroad transportation. Most important to railroad advertising is the fact that a great majority of those who attended the Railroad Fair had never ridden on a streamlined, air-conditioned train. One check by an eastern railroad which had streamlined equipment on display determined that 24,000 people out of 27,000 who went through its train had never taken a railroad trip. This is amazing information.

This simple tally illustrates the opportunity to win new customers for the railroads. It makes it clear that what has been done to promote new streamlined equipment is not enough. Only the surface has been scratched in selling the masses on "taking the train." A vast American travel market is available, but the competition for it is keen.

From 1900 to 1920 total intercity passenger travel doubled. From 1920 to 1940 it quadrupled. Looking ahead, the opportunity for selling the railroads to travel-minded America is greater than ever before.

The 13.7 cu. ft. capacity container (left) developed by the Railway Express Agency for handling small packages on "peddler cars." About 12,000 are in use. Skids make fork-truck handling possible. Roller and wheeled gravity conveyors (right) are used by the Express Agency and several railroads to speed the handling of express and baggage

RAILROADS SPEEDING HEAD-END WORK



On one road thinking on the handling of head-end traffic at way stations has run to containers and electric hoists. There might be one davit in each car door and one hoist for each pair of doors. Containers would be stacked, then pushed to the place of rest for the journey to destination. The cross-section shows doorway of car with davit and hoist and drawing above it shows specifications of container

More progress sought in cutting expenses and delays—Varied equipment used—Vastly increased volume of mail a recent complication

The use of machinery to do much of the work of loading and unloading baggage, mail and express is one method by which the railroads and the Railway Express Agency have had some success in cutting the train delays and burdensome expense which always have attended the handling of this important traffic. To date, substantial progress has been made in bettering terminal operations, but the considerably different and in many ways more difficult problem at the way station still resists any overall solution. At terminals power trucks are being used with and without skids, as are the tractor-trailer train, power conveyors—both fixed and portable—and gravity conveyors, but at way stations the baggage truck, powered or hand pulled, is still the mainstay.

In handling head-end traffic at practically all large terminals fixed conveyor systems long have been an aid in speeding the work. (Generally, mail is the only traffic so handled, but the Burlington has found use for conveyors in loading and unloading both full and empty milk cans.) Many roads have felt that despite the speed-up, their use requires too much manpower to make real economies possible. The Missouri Pacific, however, in December, 1947, installed at its Texarkana, Texas, terminal a new conveyor which, instead of spilling its contents onto a primary separating dock, passes over the dock at waist height. Mail unloaded from cars is placed on the conveyors, and as it passes over the platform at a rate of 70-80 belt feet-per-

The Lyon - Raymond lift truck, one of four types which the Railway Express Agency has subjected to extensive tests

minute workmen pull off the sacks destined for outbound cars and send them down chutes for further separation or loading, while sacks headed for the post office continue on their way. Thus two jobs are accomplished at the same time without the use of a second belt, and with a considerable saving in man-hours and a speedier operation. A corollary advantage is that terminals which load storage cars to Texarkana no longer have to separate mail destined for that station, thus saving them considerable time.

More conveyor systems are either in the process of being installed or under consideration. The Burlington is installing such a system at Omaha, Neb., and a study of the advisability of another such system at Denver, Col., is being carried on by the roads entering the Union Station, while the Santa Fe is improving its conveyor system at Dallas, Texas.

Movable Equipment

In loading both mail and express at terminals, the Illinois Central has found that portable electrically driven belt conveyors expedite the work. The Burlington, too, has found them useful in its stations at Chicago, Kansas City and St. Louis. Their advantages of maneuverability and speed have made them a real aid under many conditions.

Gravity conveyors also have been found helpful in terminal work by a number of railroads. The Louisville & Nashville uses them to speed up the loading and unloading of mail and express at several large stations. The Burlington uses them at Chicago in handling outbound newspapers and express from vehicles and, to a more limited extent, between doorways and ends of cars being loaded or unloaded.

The conveyor-powered endless train of live skids which the Railway Express Agency has set up at a number of its terminals, notably at New York and Jacksonville, Fla., have been described frequently. Likewise familiar are the tractor-trailer train and gas- or electric-powered baggage trucks which are in use at many stations scattered widely over the country.

Where platforms are sufficiently roomy the Reading is using the platform-lift-truck, line-skid method of handling mail, while the Lackawanna has found these devices of real value at some of its stations, particularly at Hoboken, N. J. Their application in this service is, of course, related to the freighthouse operation in which they are widely employed.

More attention than ever before is now being given to the adaptation of mechanical handling techniques to the special conditions prevailing at way stations. There are many factors, including Post Office regulations, wide variations in fixed facilities at stations, plus the character and volume of traffic, which have precluded any solution which can be applied successfully to the majority of stations.

The Railway Express Agency, in common with the railroads, has found no one way to end train delays caused by slow handling of head-end traffic at way stations. Like the Nickel Plate and other railroads, the agency has found that, whenever possible, having motor trucks back up directly to the car doors to do the loading and unloading is a great help. It has also experimented with baggage trucks with platforms built up to the level of the car floor. This has been of some help, but variations in the height of station platforms above the rail require trucks of different heights at almost every station. On about twenty of its routes, the use of these trucks and package hampers has made it possible to handle express on trains from which it had been excluded because of loading and unloading delays. Containers to be loaded aboard train are placed on the high platform truck. When the train arrives, express, both loose and in containers, coming out of the car is put on a platform truck of regular height. Then the containers and loose freight from the specially designed platform truck are placed in the car by hand. In the first test of this operation accurate time records showed that four loaded containers and some loose pieces were unloaded and two loaded containers and some loose freight were put a-

board in a total elapsed time of two minutes. The loading of mail at the same station stop required eight minutes. Subsequent tests have proved the method a sound one at some locations.

A number of railroads have had experience with the use of various types of containers in handling head-end traffic. The Pennsylvania, New York Central and North Western are only a few. So far, they have not proved satisfactory in handling mail. First of all, space is lost through the use of the container and the Post Office wants every cubic inch it pays for. Another difficulty is dead-head pay for any equipment contained in cars which must be dead-headed to some terminal.

For way-station work the express agency and several railroads, including the Santa Fe and the Illinois Central, are working with an elevating platform truck of the type illustrated. The adjustability of the truck platform makes it adaptable to most stations. The Santa Fe has experimented with a number of them at Pueblo, Col., Topeka, Kan., Wichita, and Oklahoma City. They are to be installed at Albuquerque, N. M., Clovis, and La Junta. Consideration is being given to using them with a lightweight skid on wheels, about 4 ft. by 6 ft. This loaded skid would be pushed from the truck into the car to be unloaded after the train was in motion. Then the skid would be loaded with material to be taken off at another station. Only one skid would be handled in each car door at a station. This technique might be appropriate, it has been suggested, for such stations as Topeka, Wichita, Emporia, and Wellington, Kan.

The Union Pacific sees possibilities for expeditious handling of mail and the general run of express through the use of the fork truck and a collapsible wire container on wheels.

While some railroads are turning to the lift truck to cut train delays resulting from the exchange of head-end traffic at way stations, gravity type conveyors will be given a tryout by the Illinois Central in discharging and loading mail at intermediate points. In this plan, a conveyor unit will be carried in the head-end car. Its lightness permits easy handling by one man and it can easily be placed on its side along the walls, taking up very little room. The Southern Pacific has tried using conveyor units at way stations, but results to date are described as inconclusive. One of the main difficulties with some conveyors is that mail frequently does not have an even enough surface to move over them readily, while sack ropes often become entangled in wheel axles or rollers.

Truck Routes

The Southern Pacific, Cotton Belt and Union Pacific are among the roads that use trucks extensively to handle head-end traffic for stations at which passenger trains would otherwise generally make only brief stops. The S. P., for example, has thus used trucks paralleling its rail routes since 1940. On one line their use resulted in the elimination of some 13 passenger-train stops and permitted shortening schedules by one hour. Important monetary savings were realized, of course, from the reduction of expensive stops and starts.

The Post Office Department practice of separating mail as it is loaded aboard trains and checking for misdirections, has been subjected to some criticism, and the Burlington has had some success in reducing delays so caused. Mail is loaded aboard the train without this checking when train delays are likely and the railroad assumes the responsibility for any improper loading. The same is true in Canada, where the Post Office Department permits loading without inspecting each tag. On both the Canadian National and Canadian Pacific, it is generally the express traffic which is the cause of train delays, not the mail.

More attention to means of avoiding expensive, and to the passenger annoying, delays to passenger trains, is to be expected with increasing volume of mail the railroads are required to handle.

Battery powered truck used in handling express, mail and baggage

Above—Sending and receiving teletype machines which are part of extensive printing telegraph network on the Baltimore & Ohio. Below—Attendant on the New Haven's "Yankee Clipper" prepares to place a telephone call to the office of a passenger

End-to-end and train-to-wayside radio, train announcing, telephone and musical entertainment systems—these are but a few of modern railroad communications facilities which are expediting passenger train movements, increasing good relations with travelers and, at the same time, helping to reduce overall operating expenses. Others include improved telephone service at central reservation bureaus; public address systems for announcements and music at passenger stations; line-wire carrier circuits between distant points to take care of more telephone, teletype and telegraph messages without having to install additional line wires; improved train dispatching telephone circuits to enable centralization of dispatcher and increase dispatching efficiency; as well as the use of micro-wave radio, in lieu of wire and cable lines between distant cities, for the transmission of communications.

As an example of end-to-end and train-to-wayside communication, the Erie this year completed the installation of space radio equipment on 347 mi. of main line between Marion, Ohio, and Salamanca, N. Y., including equipment in 14 wayside offices, 15 cabooses and 16 Diesel-electric locomotives. Seven of the locomotives are assigned to passenger service. The installation allows instant communication at any time between the locomotive cabs, wayside offices, dispatchers or other equipped trains in range. The crews of both passenger and freight trains are supplied with lightweight walkie-talkie radios as standard equipment, thus enabling the conductor or brakeman of equipped trains to communicate with the engineer from the rear of the train or from any point alongside the train. The installation, which has resulted in a substantial increase in operating efficiency, is to be extended in the near future from Salamanca to Jersey City, N. J., an additional 413.6 mi., and will include equipment in several additional wayside offices, 9 more Diesel-electric passenger and freight locomotives, and 20 cabooses. A general article on the Marion-Salamanca project appeared in the September 11 issue of *Railway*

Erie passenger train at the west end of the 347-mi. radio-equipped territory between Marion, Ohio, and Salamanca, N. Y.

PROGRESS IN PASSENGER COMMUNICATIONS

Modern communications aboard trains, in terminals and offices, and between distant cities, keep passenger trains moving, improve public relations, and reduce operating and maintenance costs

Age, and a detailed description will be published in a forthcoming issue of *Railway Signaling.*

For making station and other announcements of general interest to passengers, the New York, New Haven & Hartford has installed public address equipment on 180 new stainless steel passenger cars. The system is somewhat unusual in that the installation on each car constitutes a complete unit in itself. This arrangement provides for flexibility in the assignment of equipment, as it is not necessary to include in the train consist a specially equipped car for control of the system.

Train Announcements

Fifty new double-deck commuter passenger cars now being delivered to the Long Island are each equipped with a public address system for station announcements. Three loud-speakers are installed inside each car and one is located on the car platform, all of which can be operated simultaneously throughout an entire train.

The New York Central's new "Twentieth Century Limited" trains are equipped with a public address and dial-type intercommunicating telephone system. Each car, except the dining car, has a control panel and hand set, located in a flush steel cabinet in the passageway at the end of the car. The dining car is equipped with a portable phone which plugs into a flush panel at the steward's work section. The hand sets are sound powered and serve also as microphones for the public address system, all cars, except the sleepers, being fitted with loud-speakers. The address and telephone systems combine to provide a number of services, such as arranging for dining car seating, paging recipients of telephone calls coming in on the radiotelephone in the club car, and making general announcements. Additional details of the equipment on the trains are included in an article in the October 16 *Railway Age.*

The Atchison, Topeka & Santa Fe has in operation on its "Super Chief," between Chicago and Los Angeles, and its "Texas Chief," between Chicago and Galveston, Tex., a radio and music distribution system, which provides high-grade musical entertainment. It has won the favor of travelers. An article on musical entertainment aboard trains, as applicable to the Santa Fe, appeared in the October 4, 1947, *Railway Age.*

Both of the Chicago, Burlington & Quincy's new "Twin Cities Zephyrs," operating between Chicago and St. Paul-Minneapolis, are equipped with a program distribution system. Six "California Zephyrs," joint trains of the Burlington, the Denver & Rio Grande Western and the Western Pacific, are to be equipped with the system when they go into service. A detailed article on the equipment involved in these installations was published in the June issue of *Railway Signaling.*

Public Phones on Trains

On September 17, the New Haven inaugurated radiotelephone service for the use of passengers on its eastbound and westbound "Yankee Clipper" and "Merchants Limited" trains between New York and Boston. The radio equipment on these trains connects with the highway mobile radiotelephone service of the Bell System. Passengers on the trains may place calls to their homes, offices or elsewhere by making their desires known to the attendant. When incoming calls are received, the individual desired is paged on a public address system. Other railroads are offering similar service on some trains.

Carrier and Teletype

In order to provide more rapid and efficient communication service between cities on their own lines, as well as those with off-line offices, many roads, for example the Santa Fe, the Chicago & North Western, the Texas & Pacific, and Baltimore & Ohio, have added teletype and telephone service employing carrier equipment in which additional circuits are superimposed on existing wires.

To meet the increased density of passenger traffic and to provide maximum flexibility of operation, the Canadian Pacific has improved the performance of its telephone dispatching circuits between Montreal, Que., Ottawa, Ont., and Smiths Falls, as well as between Montreal and Saint John, N. B., by the installation of a new and novel network scheme developed by the road's communications engineers, which has resulted in substantial operating benefits. The technical design was described in detail in the November, 1947, *Railway Signaling.*

The railroads, as a whole, are thus doing a good job in adopting the latest developments in the communications field, and revamping their existing facilities to meet changing times. Better passenger service, increased operating efficiency and, simultaneously, reduced operating and maintenance expenses, are being effected as a result.

The cost of 60-ft. railway postal cars has risen from about $24,000 in 1928 to an average of nearly $85,000 in 1948—an increase of approximately 250 per cent

WHAT FUTURE FOR MAIL REVENUE?

Post Office opposition to fair mail pay, proposed new operating restrictions, "all first-class mail by air" agitation may mean reduced income, added operating problems and expenses

The United States Post Office Department likes to describe itself as "the railroads' best customer." That description is usually justified by the amount paid to the roads for transportation of mail—over $140 million in 1947, without allowance for retroactive rate increases authorized by the Interstate Commerce Commission last December. It may also be justified by the "relationship of mutual helpfulness" which has long existed between railroad operating officers on the one hand and officials of the Post Office Department in general and of the Railway Mail Service in particular, on the other.

It would be a serious financial and operating loss to the railroads if their heretofore friendly relations with the department should be seriously or permanently jeopardized. The burden of such a loss would fall most heavily on passenger service, partly because the amount of mail carried and the adequacy of the compensation for mail transportation affect the quantity of passenger service which the railroads can offer to the public; and partly because the requirements for handling that mail affect the quality of such service. Nevertheless, because of the activities of a few strongly anti-railroad lawyers on the Post Office Department's legal staff, and of a few free-spending aviation enthusiasts in Congress, the railroads today face a genuine threat of loss of mail revenue, and of new and serious mail-handling problems.

Increased Mail Pay

On February 19, 1947, the railroads petitioned the Interstate Commerce Commission (Docket No. 9200) to establish new mail rates "not less" than 45 per cent in excess of rates then in effect. By any considerations of logic or common decency, the railroads had an airtight case. Mail rates had not been changed since 1928; meantime, the cost of handling all traffic, including mail, had approximately doubled. The Post Office Department itself had taken cognizance of the increased general cost level by continuing in effect, to offset higher costs, the 50 per cent increase in rates on ordinary mail adopted as a tax revenue measure during the war. And, finally, the railroads had sought and obtained substantial increases in passenger fares and freight rates. Their petition for increased mail pay was merely an attempt to offset rising costs by applying to mail traffic rate increases similar to those applied to all other traffic, so that mail traffic would pay its own way instead of getting a partial "free ride" at the

expense of individual passengers and commercial freight.

The department's immediate reaction was an attempt to delay consideration of the proposed increase by asking for eight months in which to "study" the railroad proposal. The commission denied this request, and hearings on the railroad petition were begun on July 10, 1947. After three days—during which the department asked for a *reduction* in mail pay—the hearings were recessed at the department's request until September 30.

Realizing that the department's delaying tactics would postpone for months, or even years, any final action on their request for a permanent increase, the railroads then asked the commission for an immediate interim increase of 35 per cent, retroactive to the date of their original petition. The department countered by asking denial of this interim increase and reexamination of the 1928 mail pay formula; also by advising the I.C.C. that it would be unable to resume hearings on September 30. When hearings were, nevertheless, resumed on that day, the department asked a further six-month delay, still for the ostensible purpose of "studying" the railroad request for higher rates.

Interim Increase Authorized

Feeling that it would not be fair to require the railroads to continue any longer to carry mail at unduly low rates, the commission on December 23, 1947, made public a decision dated December 4, authorizing a 25 per cent increase in railway mail pay effective February 1, 1948, but retroactive to February 19, 1947, and subject to the proviso that if a permanent increase of less than 25 per cent should subsequently be approved the railroads would repay to the department, with interest, the difference between the two amounts.

Since the effective date of this interim increase, the department presumably has been engaged in its "study" of the railroad proposal, for which it has asked and received special congressional appropriations totaling about $390,000. This study will include a survey, to be partly paid for by the department, of actual switching and station costs on front-end traffic, and a one-week study of space actually occupied by mail, baggage and express on every train in the United States. This space study was made in October, but results will not be available for several months at least. The facts to be determined, and the method of making the survey, were largely specified by Commissioner Mitchell in August, 1948, after the railroads and the department had been unable to agree because of department demands which the railroads considered both unreasonable and unnecessary.

Meantime, as a result of further increases in wages and other operating costs since early 1947, the railroads (July, 1948) amended their original petition to ask for a total increase in mail pay of 65 per cent over rates in effect from 1928 to February 18, 1947. This is equal to an increase of about 40 per cent over present rates, which, of course, are the original 1928 rates plus the 25 per cent interim increase effective February 19, 1947.

On July 2, 1948, in an ingenious counter-attack to the railroads' request for higher mail pay, the department filed with the commission a "Comprehensive Plan for the Transportation of United States Mail by Railroad."

This "new plan" was originally scheduled to take effect on August 1—despite the fact that literal compliance with it in only 29 days would have been difficult for all roads and impossible for many. Its effective date has from time to time been postponed by the department in what appears to be a "war of nerves" designed to punish the railroads for their temerity in suggesting that mail traffic should pay its share of increased operating costs. The commission, however, has given the railroads until January 30, 1949, to study and reply to the plan.

If adopted in full, this plan would make radical changes in methods of handling mail and of payment therefor; sharply reduced railway mail revenue in relation to the total amount of mail transported, and also vastly increase the operating problems encountered in the handling of mail.

Eventually, perhaps, the loss of revenue might be partly offset by I.C.C. prescription of some new basis of mail pay. But such a basis would not be easy to fix.

Mail traffic is not evenly balanced; it is heavier going south and west than north and east. The unbalance, moreover, varies sharply on different roads. P. J. Schardt, chairman of the Committee on Railway Mail Transportation, has recently pointed out that the ratio of loaded mail space to total mail space authorized varies from 98.9 per cent on one big Class I road, down to 57.9 per cent on another.

Present mail rates (which are fixed on a space rather than on a weight basis, and which are uniform for all Class I roads outside of New England) take into consideration the fact that many cars must necessarily be returned empty or only partially loaded, and that such unavoidable and unusable empty space should be paid for as an essential part of the overall cost of mail transportation. If, under the department's new plan, payment were to be made for loaded space only, the rates on that loaded space should fairly be increased by an amount sufficient to cover the empty return movement, in the same way that freight rates are fixed at levels which take into account necessary empty return movements of many types of freight cars. That, in turn, would require different rates for each road; otherwise, roads having nearly balanced mail traffic would be relatively overpaid, and those with a largely unbalanced movement would be relatively underpaid.

Even, however, if the I.C.C. should be disposed to favor such a change in mail pay rates, and if equitable rates could be developed, the Post Office Department's bitter opposition to the railroads' present request for higher rates, to cover only increased operating costs,

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"In paying the air-mail subsidy, the Post Office Department is called upon to finance inefficient management, parties, hotel suites, entertainment, excessive public relations costs, and to finance competition between existing scheduled carriers."

—House Document No. 1242, Survey and Study of the Postal Service, Preliminary Report, January 15, 1948, page 6.

Comparative Revenues and Expenditures from Domestic Air Mail and Non-local First-Class Mail, as Shown by U. S. Post Office Department Cost Ascertainment Report for Fiscal Year 1947

	Domestic Air Mail	Non-local First-class Mail
Ton-miles handled	19,948,665	105,294,074
Pieces handled	772,185,070	14,977,095,662
Revenue received	$ 54,356,782	$ 452,537,977
Total expenditures	$ 73,341,207	$ 378,506,832
Excess of revenue	.....	$ 74,031,145
Deficit of revenue	$ 18,984,425	.....
Cost of transportation:		
by air	$ 30,233,606	.....
by rail	.....	$ 21,674,969

indicates that the change could be accomplished only after long-drawn-out proceedings.

The effect of the new plan on railroad operation, however, could be even more serious than its effect on revenues.

With mail-space authorizations made on a monthly basis, railroad operating men can plan at least a few days ahead the car space to be provided with the assurance that their plans will not be changed at the last minute by outside authority. Under the proposed new plan, with the authorizations for space being made only from day to day, and for varying distances, such advance planning would become extremely difficult. Since the railroads are obliged to carry mail on any passenger train the department may designate, and can be fined by the department $1,000 for each failure to comply with its directives, railroad officers would have no choice but to obey department orders, regardless of their effect on costs, efficiency, or quality of passenger service. A last-minute authorization for an extra car or space unit, for instance, might mean holding a featured train for addition of a car, or of heavier motive power; a late cancellation of space previously authorized or a late decision to withhold certain mails might mean time lost to cut out a car, or unnecessary expense for hauling an unneeded one. The inevitable result would be added expense or poorer service — or both.

First-Class Mail by Air

While the Post Office Department delays and opposes the railroads' petition for more equitable mail pay, and advocates new methods of mail handling which would reduce both revenues and quality of service, other interests are actively seeking transfer to the air lines of all "long-distance" first-class mail. Bills for this purpose were introduced in the 80th Congress and similar bills presumably will be introduced in the new Congress which convenes in January. Although the principal advocates of this proposal are not officially connected with the Post Office, there is some evidence to indicate that the department is not unsympathetic to the idea.

The announced purpose of this proposal is, of course, to strengthen the commercial aviation industry as an adjunct to "national defense" by providing that industry with additional subsidies, thinly disguised as air-mail payments. The department's own testimony before the House committee on post office and civil service*, however, indicates that the additional volume of air mail would require only from 500 to 700 additional planes; assuming an average five-year plane life, this would mean a maximum of only about 140 new transport planes per year—a very small and inordinately expensive drop in the tremendous bucket of overall defense requirements.

On the other hand, the proposal would reduce mail revenue accruing to the railroads — which are just as essential to the national defense as ordinary commercial air lines — by some $13 million per year, while still requiring them to maintain equipment and facilities for handling first-class mail over short distances, between points not served directly by air, and during periods when weather or other conditions prevent air movement of mail.

The cost of the proposal, likewise, would be out of all proportion to the benefits derived, either by commercial aviation or national defense. The 1947 Post Office Cost Ascertainment Report shows that total revenues from non-local first-class mail averaged $4.30 per ton-mile, while expenses were $3.60 (including an average of 21 cents per ton-mile for rail transportation), leaving a profit to the department of 70 cents per ton-mile. On the other hand, revenue from domestic air mail averaged $2.72 per ton-mile, while the handling cost was $3.67 (including an average of $1.52 per ton-mile for air transportation), creating a net deficit for the department of 95 cents per ton-mile.

If all first-class mail which could be "expedited" by air movement were so handled, the total diversion of first-class and "equivalent" mail (franked, "penalty," etc.) from surface to air transport would amount to an estimated 146 million ton-miles annually. Applying to this diversion the difference between ton-mile transportation costs by rail and by air would indicate an increase in transport cost alone of some $200 million. In addition, the proposed reduction in present air mail charges from five to three cents would cut annual postal revenues about $22 million. Even if this were offset in part by smaller payments for rail transportation, the total cost of the "all first-class mail by air" scheme could hardly be less than the estimated $200 million per year — an amount which unquestionably would do far more for national defense if spent in other directions, and which would represent an unjustifiable increase in the department's already top-heavy deficit, recently stated by the postmaster general to be running over half a billion dollars per year.

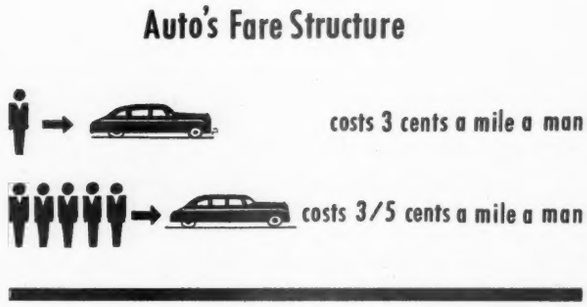
Even this $200 million does not include the cost of continuing to maintain surface facilities for mail which could not be expedited by flying, and for providing standby service for times when mail could not be flown. Nor does it provide for the undetermined capital cost of establishing additional airport terminal and handling facilities, or the extra cost of transporting mail over the comparatively long distances between post offices and airports.

It is obviously impossible to predict the eventual outcome of the railroad petition for higher mail pay: the extent to which new methods of handling mail may be forced on the railroads; or the amount of mail which may be diverted from rail to air. But if the lawyers who are presently representing the Post Office Department before the Interstate Commerce Commission, and the aviation enthusiasts, should have their way, the result would be less mail for the railroads to handle in the future, and less revenue and more trouble from what they do handle.

*House Document No. 1958, Report on Air Mail Subsidy, May 13, 1948, pages 5 and 8.

TINY SLICE OF AUTO MARKET WOULD DOUBLE RAIL TRAFFIC

Is it possible for railroads to grab profitable traffic from private automobiles, their most formidable rival? Just a small fraction of private car travel would put them in clover


Auto's Fare Structure
costs 3 cents a mile a man
costs 3/5 cents a mile a man
Railroad Fare Structure
costs 3 cents a mile a man
costs 3 cents a mile a man

n what may be considered "'normal" times—1937-1941—about 85 per cent of all intercity travel, in terms of passenger-miles, was handled by private automobiles, according to an estimate by a railroad research study group. Common carriers shared the remaining 15 per cent. The Interstate Commerce Commission estimates that, in 1941, some 85 per cent of all intercity travel was by private motor vehicle, while steam and electric railways combined carried less than 10 per cent, and buses about 4.6 per cent.

It may be expected when a buyers' market reappears that the proportion of travel by automobile will approach its "norm" of 85 per cent and that further improvements in automobile efficiency or increases in personal wealth may throw even a larger proportion to the private car, unless the common carriers make such improvements in service or reduction in rates as will hold or extend their popularity.

Growth of Automobile Use

The speed with which the privately owned motor vehicle captured the bulk of the passenger movement of the country is itself proof that it possesses inherent advantages which common carriers have found it hard to match, even with improvements they have introduced over the past two decades.

A Greater Total Travel Market

The great increase in automobile ownership and use came only in part at the expense of common carrier agencies. The automobile created far more new travel for itself than it took away from trains, interurbans and steamboats. The "Passenger Traffic Report" of the federal coordinator, issued in 1935, pointed out that the private car had quadrupled travel desires since 1920. In the latter year, each inhabitant of the country traveled an average of 500 mi. a year (local and intercity). In 1929 this average had increased to 2,000 mi. and, even in 1933, in the depth of the depression, it was about 1,700 mi. Total intercity passenger-miles performed by all common carrier agencies in 1947 exceeded that performed by the railroads and steamboat lines in 1920—and, proportionally, grew beyond the increase in population. This means only that the automobile has created so strong a habit of "going places" that it has increased the business even of the common carriers.

The proportion of total personal expenditures devoted to transportation has greatly increased, due almost entirely and directly to the automobile. The National Industrial Conference Board found in 1937 (latest comparative figure available) that the average consumer's budget made an outlay of 11 per cent for transportation, compared with 7.8 per cent in 1919 and only 4.1 per cent in 1909.

It is clear that the biggest field from which to obtain additional railroad traffic is that of intercity travel in private automobiles. If the railroads could win over one twelfth of that travel, they would double their own non-commutation business. Many transportation men believe that it is harder for common carriers to win over private auto travel than to take each others' business because, in general, all commercial carriers suffer like disabilities in competition with the privately owned transportation. On the other hand, there are some inherent advantages in railroad travel which are not possessed either by the private automobile or by the air lines or buses. It is possible that these virtues can be used more effectively to win a small slice—but big gain—of private travel than to wage a more direct and expensive fight against the railroads' common-carrier rivals.

What Types of Travel?

A committee of railroad passenger men studying postwar prospects is reported to have questioned whether common carriers as a whole can hope to attract or regain much automobile travel for journeys up to 250 mi., except between or near large cities with

congested highways. It would appear, therefore, that the segment of automobile travel for which the railroads can make a bid, with reasonable assurance of success and profit, is that which moves between centers of population at distancs of at last 100 mi., and preferably more than 250 mi.

Since business travel is relatively inelastic, and extremely sensitive to full costs, the railroads can obtain more of it chiefly by lowering their prices, bettering their service—principally with respect to speed and frequency—and providing for greater mobility at terminals. Pleasure travel can be expanded almost without limit, subject to purchasing power, in proportion to the desire to travel created. The weapons for its capture are more subtle and indirect.

The chief virtue of the automobile is its great flexibility. It is hard to beat. The railroads themselves provide company-owned autos for, or pay mileage allowances to, traffic solicitors and operating officers who have to make calls intensively or reach points off-rail or between stations. Railroad employees are entitled to free transportation, yet they are wide users of private automobiles for pleasure travel.

Railroads can put in only a few blows on this score, but sufficient, perhaps, to win over a substantial traffic if coupled with other and more effective service advantages, viz.:

(1) *More frequent service.* When traffic can be built up to support trains at close intervals, a potent weapon is at hand. Witness the success of the Pennsylvania between New York and Washington, or the roads between Chicago and Milwaukee. European roads have found Diesel-hydraulic or Diesel-electric multiple-unit-controlled rail cars useful in reducing headways and increasing traffic. Their success here, of course, would depend upon the intelligent cooperation of the railroad unions in allowing smaller crews. One student of transportation points out that the revenue of a single train is not the test of good service, but the *total* revenue on a particular route divided up among *all* the train-miles.

(2) *Better station taxi and local transit service.* If the passenger can attain something comparable to the flexiblity of his auto at the beginning and end of his journey, he might be persuaded to use the rails. Most railroad station taxi facilities need a great deal of improvement, and many roads have not exhausted the possibility of getting better bus and trolley service to and from their stations.

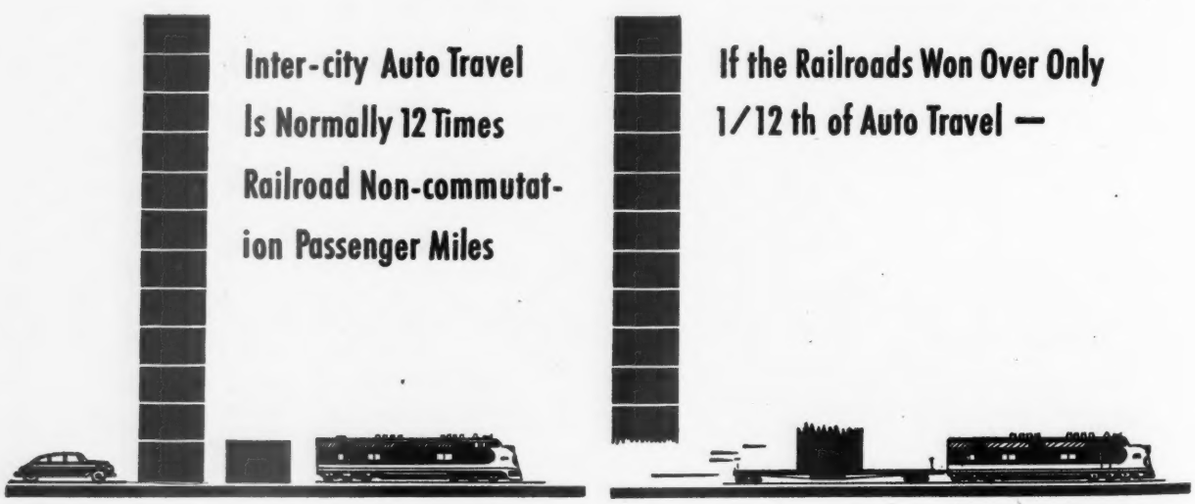
(3) *Automobile rental at destination.* This bids fair to be a most effective tool in the railroad bag. Tried under various arrangements, starting in New England in 1938 and continuing until the war, car rental schemes were not particularly effective in winning traffic to the rails, although their use increased steadily.

Most railroads entered into an arrangement with the Hertz Driv-Ur-Self or with other local companies effective July 1, 1947, which has developed steadily and is now in effect in more than 300 cities.

It is clear that the railroads have as much to gain from the success of auto rentals as have the renting companies themselves. They should, therefore, advertise and publicize the service in every way; the rental companies have little opportunity to reach the public by themselves. Furthermore, ticket agents and other public-contact employees should be made thoroughly familiar with auto rental service and its cost at principal cities served and be prepared to make reservation arrangements with dispatch.

(4) *Transportation of autos on passenger tickets in expedited freight service.* Before the war, almost all the big passenger roads were parties to tariffs authorizing this service, which was first initiated in 1929. In general, motor vehicles were charged for on the basis of three to five first-class tickets, including those covering the transportation of the owner and party. The plan was reasonably successful in winning new traffic to the rails, especially during the winter months. The prewar success of the plan in winning automobile traffic and the natural advantage of joining the benefits of both forms of transportation into one "package" surely warrant re-establishment and subsequent expansion of the service at the earliest possible opportunity.

(5) *Closer cooperation with touring buses in joint promotion.* If a railroad can assure its patrons of good touring by bus at resort areas, properly priced, it can overcome its own inherent inflexibility to some extent. Since touring companies depend almost en-


Inter-city Auto Travel
Is Normally 12 Times
Railroad Non-commutation Passenger Miles
If the Railroads Won Over Only
1/12 th of Auto Travel —

tirely on common carrier travel for their patronage, they may be expected to be receptive to any propositions looking toward a betterment of joint rail-bus service offered to pleasure travelers.

The Question of Cost

The private car has its own "fare structure," in a sense, says Prof. Stanley Berge of Northwestern University. But its chief characteristic is that very few motorists pay any attention to it at all. The automobile is a way of life—not an agency of transport—as President Ralph Budd of the Burlington has aptly put it. The fact of the matter is that very few people would give up the ownership and operation of automobiles even if they comprehended their full cost. Before the war, many people whose incomes were barely above the subsistence level owned cars. Thus, it is fairly obvious that the level of railroad fares is going to exert little effect in attracting casual short-haul motor travel.

The classes of motorists who *are* cost conscious are, principally, business travelers, persons making necessitous emergency trips, and pleasure travelers on *long* runs. Even here there is a tendency to count only direct costs. The prewar cost of operating an automobile—including the full distribution of depreciation and fixed costs—was from 3.7 to 5 cents a mile, depending on the age and sale price of the car. This cost has increased at least 25 per cent subsequently—to from 4.6 cents to 6.2 cents. Yet very few motorists of even the categories cited consider this rate in their comparison of travel costs. They would own the car in any event, they say, and why charge overhead cost to their trip? For them the more realistic cost of driving is simply the sum of the cost of gas, oil, and repairs en route. If the motorist is more businesslike, he may also add tires and maintenance, in which case he probably arrived at a rate of about 2.4 cents a mile prewar, subsequently raising it about 25 per cent to 3 cents.

Party Rates

To win over the motorist on price alone, therefore, the railroads would have to lower their existing first-class fares substantially in order to show a favorable comparison for single individual travel alone. The problem is even more difficult when two or more are traveling in the same party, for then the peculiar "rate structure" of the automobile comes into full play. Five can travel by auto as cheaply as one; hence the per-mile rate for each person in a party of five becomes, on the basis of 3 cents a vehicle-mile, 0.6 cents, which is "out of sight" for the railroads under the present system of individual fares.

Party rates of varying types were in effect in the individual passenger association territories for many years before the war, but since the average minimum group started at 25 persons, it is clear they were not designed to meet private automobile competition. The quotation of reduced rates for groups of two to five would create a revolution in the railroads' fare structure and bring with it a host of policing problems. Yet, until such a rate is introduced, the carriers can never hope to win much family pleasure-type travel, except that unaffected by price comparisons.

American Air Lines has broken the dam to some extent with its quotation, effective September 13, of a "family package" party rate, whereby, on any Monday, Tuesday or Wednesday, a husband who pays full fare may take along his wife and children under 21 years for half-fare. During the first week it was in effect, the bargain boosted the line's load factor out of New York 10 per cent or more. Northeast Air Lines has a less liberal but less restricted family package rate which grants discounts on party travel from Monday noon through Friday noon.

Privacy vs. Gregariousness

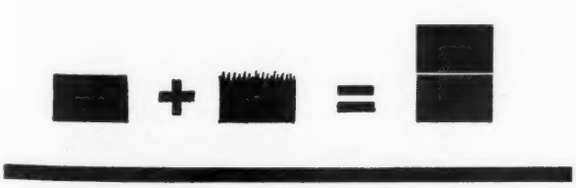
Motorists say they like to travel in their cars because they keep the family together and enjoy privacy. The increasing use and availability of Pullman room accommodations and of spacious, low seat-capacity coaches on the railroads should be an effective answer to that argument.

But it is questioned whether Americans really dislike mixing with strangers so much as they find it unpleasant to associate with others under uncomfortable and alienating circumstances. Anyone who has enjoyed a long-distance, all-expense tour by rail or steamship knows how great a portion of the enjoyment comes from meeting new people from varying environments. The fact of the matter is that the railroads offer a perfect combination—privacy for rest and toilet, plus pleasant comradeship in uncrowded surroundings during the hours of activity. This, the isolated automobile, with its narrow range of relationships, cannot equal.

Motor enthusiasts speak also of their self-reliance —"go when and where you please, without reservations, tickets or timetables." For shorter journeys there is a certain degree of satisfaction in "being the driver," but for longer trips such evils as storms, break-downs and fatigue frequently sour the picture.

The winning of automobile traffic to the rails is a most difficult undertaking, most railroaders agree, and the few suggestions here set forth would not accomplish it alone. But the field is worth the best study the carriers have in them because in comparison with the size of the railroads' common-carrier rivals, it is almost as the Mississippi is to Goose creek. Why spend all one's time getting scratched in the blackberry patch, when there are lots of apples to shake off the big tree?

They Would Double Their Own Traffic



GENERAL NEWS

Civilian Defense Plan Provides for Transport

Units at all levels of set-up proposed in report to Forrestal

Transportation divisions would be included at national, regional, state, and local levels of a permanent civil defense organization recommended in a report made public on November 14 by Secretary of Defense Forrestal. The 288-page report, entitled "Civil Defense for National Security," calls for a permanent peacetime program of civil defense which could be quickly expanded in the event of an emergency.

It came from Secretary Forrestal's Office of Civil Defense Planning, of which Russell J. Hopley of Omaha, Neb., is director, being on leave from his position as president of the Northwestern Bell Telephone Company.

In releasing the report, Secretary Forrestal issued a statement saying that, "because of the immensity of the problem and wide range of subject-matter covered," he would "withhold action on the report until receiving comments of interested agencies of government and others who have not had an opportunity to study its contents."

The comprehensive organization recommended would be headed by a national Office of Civil Defense, established by Congress within the Executive branch of the federal government. The report suggests that a logical place to put it would be under the Secretary of Defense. State and municipal legislation would also be required to implement the over-all plan. The latter contemplates that the national office "with a small staff" would furnish "leadership and guidance," while "basic operational responsibility" would be placed in states and communities.

"Emergency Situations"

The summary reference to transportation in the report's introduction says that operation of a civil defense program "will require transportation of all kinds and under varying conditions." It goes on to suggest that "major attention" needs to be given "only to emergency situations, particularly evacuation"—because "regular facilities, both public and private, are adequate and competent for normal uses."

"Should it be necessary to move an entire population, or a considerable part of a city's residents," the report continues, "it would involve a carefully-developed plan and all the transportation facilities that could be mustered. The conditions under which such an evacuation would occur would create problems not easily solved save by thorough preparation. All transport facilities, whether rail, air, water or highway, would have to be analyzed and inventoried in terms of requirements for a possible mass movement of people, many of whom might be injured or ill. Fuel supplies would have to be determined, centers chosen to which vehicles and people would be sent, routes selected for their movement to destinations, and traffic controls provided to assure smooth operations.

"Authority as well as procedures would have to be provided so there would be no difficulty in acquiring needed facilities. To be ready for such eventualities, it will be necessary to organize, to lay out the plans in every possible detail, and to have the operation ready against the day when it may suddenly be needed."

The proposed transport plan is outlined in the report's 14-page chapter on "Transportation in the Civil Defense Program." The "fact" that the United States "has the finest transportation system in the world is incontrovertible," the chapter says at the outset. It goes on to assert that present rail, highway, air and water facilities could move the "entire population of the country at one time." It is then found, however, that "without mobilization of transportation resources, organization and training of the public, little could be accomplished in any civil defense program."

Also, before getting into its specifications for the transport set-up, the report says that its recommendations give "due consideration" to the "fact that major reliance has had to be placed on privately-owned vehicles as contrasted to publicly owned"; and that they contemplate further the "possibility" that an over-all domestic transport authority, presumably like the Office of Defense Transportation, would be estabblished in wartime. "This plan can be adapted to and operated under any such authority as may foreseeably be set up," the report adds.

National Transportation Division

Under the recommended plan, the Transportation Division at the national level would be a "small" unit of the proposed federal Office of Civil Defense. "Its principal functions," as the report puts it, "would consist of carrying out the policies set forth by the director [of the O.C.D.] and advising him on all transportation matters. It would direct, coordinate and supervise the transportation responsibilities of the entire civil defense organization. The chief of the division would be responsible to the director in seeing that all transportation requirements of the organization are met, including mobilization, organization and training and he would be the liaison officer for the director in all civil defense transportation matters, governmental or otherwise."

Continuing, the report emphasizes again that this national-level division "should be as small as possible." It goes on to specify that, "until additions are justified," it should consist of "a division chief and principal assistants with the necessary administrative and clerical support." It is next suggested, however, that this permanent organization should be advised and assisted "by a group of technical specialists representing the various modes of transportation, rail, water, highway, and air." This group "could be either a technical branch within the division or an advisory or consultant group to the division chief." As for the division's personnel, the report says that the "key people must be carefully chosen" with a view to recruiting a "balanced team" with members having "broad experience in all forms of transport."

Seven Regional Offices

The recommended civilian defense organization would include seven regional offices—six covering continental United States and one for the territories and other U.S.-administered areas. Under these regional offices, headed by regional coordinators, would be the state organizations, which in turn would embrace the local or community organizations. The proposed organization of transportation divisions in these regional, state and local offices follows the pattern of the recommended national-level transport set-up.

Thus the chief of the Transportation Division of a Regional Office would function under the regional coordinator. He would coordinate all civil defense transportation activities in the region and "assist in all such activities involving interstate relationships or action." He would also act as civil defense transportation advisor to the staff of the Army commander in the region. This liaison and coordinating work with the Army is characterized in the report as the regional transport chief's "most important responsibility,"

since it is designed to assure that "at all times civil defense plans are completely coordinated with Army plans." In the latter connection, the report adds that "it would be most disastrous and confusing during an emergency to find both the Army and civil defense organization depending upon the same routes of communication, the same supply lines or the same transportation facilities."

Personnel Qualificctions

"Broad experience in transportation is the most important requirement" for chiefs of the state organizations' transportation divisions, the report says. It goes on to suggest that these state directors "may be drawn from government, the transportation industry itself," or they might be traffic managers of large industries domiciled in the state. It is further suggested that personnel for the state divisions might well be persons "connected with the transportation industry who have experience in moving large groups of people."

"It is in the state organizations," the report continues, "where the surpluses and deficiencies of transportation facilities and equipment of the various localities must be reconciled and plans for necessary mutual aid between localities formulated. . . Where interstate movements are concerned the transportation officer in the state organization should be responsible for necessary working arrangements with the states concerned, referring any questions which involve national policy to the regional coordinator with appropriate recommendations."

In the local organization, where "the operational procedures and actions are actually worked out and put to test," it is recommended that the transportation officer "should have the widest possible degree of latitude, discretion, authority and responsibility delegated to him." Thus, the report warns, "extreme care" should be exercised in choosing the personnel of the local offices. It recommends specifically that "experienced personnel from all forms of transportation should be sought," because "bus companies, railroads, air lines, street car companies and passenger carrying boat and steamship companies all have personnel skilled in handling large groups of people."

Peacetime Role

The peacetime role of the transportation divisions, as set out in the report, would be one of planning and preparation. The details of this work would fall largely on the local organizations. Among other things, it is suggested that the local transport directors should begin as soon as possible the gathering of necessary information, the development of plans for mobilizing transport facilities, and an analysis of the capacities of the various forms of long-haul mass transportation and fleet operations available and their ability to remove people and supplies.

"It is," the report says, "the responsibility of the [local] Transportation Division that all emergency plans be developed in detail in conjunction with bus companies, railroads, air lines, and marine operators. Alternate plans should be devised in event one plan becomes inoperable. In conjunction with the Evacuation Division, plans and schedules should be worked out according to capabilities and capacities. Where necessary, arrangements should be worked out between commercial transportation groups, rail, highway, water, and air, so that in case of an emergency there will be no doubt in the minds of the personnel of the commercial transportation groups in making their equipment and facilities available to and at the direction of the chief of Transportation Division of the local organization."

The recommended planning would also contemplate arrangements for mobilizing private automobiles, private trucks, and emergency ambulance service. Also included are plans for the development of public information and training policies.

Extension of Non-Op Hearings Planned

The emergency fact-finding board which is hearing the non-operating unions' request for higher wages and shorter hours sought, on November 12, presidential approval of a 30-day extension of time in which to hear and report on the case. Counsel for the carriers and the unions signed a joint agreement which was submitted to Board Chairman W. M. Leiserson requesting the extension. The board was agreeable. The extension would change to December 17 the date by which the hearings must be completed and the board's report submitted to the President.

Following completion of the unions' presentation on November 9, the carriers opened with their testimony. Daniel P. Loomis, chairman of the Association of Western Railways—first witness for the carriers—asserted that he could not "over-emphasize the impracticability of the union proposals" which include 48 hours' pay for 40 hours' work —equal to a 20 per cent pay increase; time and one-half, with a minimum of 12 hours' pay, for any hours worked on Saturday, and double time, with a minimum of 16 hours' pay, for any hours worked on Sundays or holidays; and, on top of the first two proposals, a 25-cent hourly wage increase.

Mr. Loomis urged that the 10-cent hourly increase recently accepted by the conductors, trainmen, engineers, firemen and switchmen, be followed as a fair and equitable pattern for settlement of the demands of the non-operating employees.

TEN-CENT BOOST FOR THREE OPERATING CRAFTS TO COST $40 MILLION

Unions representing the engineers, firemen and 93 per cent of the switchmen advised the railroads on November 12 that they would accept their offer of a 10-cents an hour wage increase retroactive to October 16. A similar increase had been accepted by the conductors and trainmen on October 4, as reported in *Railway Age* of October 9, page 73. Settlement of the dispute was announced on November 12 by D. P. Loomis, chairman of the western railroads' wage committee on behalf of all carriers, and contracts were signed the following day.

Mr. Loomis estimated that the settlement will add about $40 million a year to the wage bill, including payroll taxes. (The cost of the earlier settlement with the conductors and trainmen was placed at $55,665,000 a year.) It was "the first time that the roads and their engineers and firemen reached a wage accord on a national basis, across the bargaining table and without recourse to mediation, arbitration or a fact-finding board," Mr. Loomis said.

Negotiations began in Chicago on September 14 but were subsequently recessed following the settlement with the conductors and trainmen, by request of the unions on October 4, to give their negotiating committees an opportunity to confer with the organizations' general chairmen.

Still before a presidential fact-finding board at Chicago are the demands of 16 non-operating unions for wage increases and important rules changes which would cost the roads about $1.5 billion a year, as reported in another column.

Embargo Placed on Export Freight Through East Coast Ports

An embargo on practically all freight consigned for export through New York, Boston, Mass., Philadelphia, Pa., Wilmington, Del., Baltimore, Md., and Hampton Roads, Va., was put in effect on November 13 by the railroads, acting through the Association of American Railroads, because of the strike of longshoremen in those ports. Arthur H. Gass, chairman of the A.A.R. Car Service division, in announcing the embargo, stated that, although there is now no backlog of freight cars at the ports named, even a short tie-up of terminals would soon result in putting many vitally needed cars out of service. The embargo is to prevent that, he added.

Freight consigned to the United States armed forces will be accepted, Mr. Gass stated, because the longshoremen are continuing to load this cargo.

Other exceptions to the embargo include grain, soybeans, flaxseed and rice in bulk when covered by permits issued by operators of elevators where they are to be unloaded; petroleum or petro-

leum products in tank cars when they are to be unloaded before overseas shipment; coal or coke in bulk; freight for unloading into storage within the port area when arrangements for storage have been made in advance; freight for movement by Seatrain, Inc., and other freight covered by permits issued by proper authority.

Supreme Court Rejects Direct Appeal on Strike Ban

The United States Supreme Court on November 15 denied a petition for a writ of certiorari whereby the three railroad operating unions involved in last May's strike threat sought to take directly to that court their appeal from the injunction which barred their proposed walkout after the government had seized the railroads. The unions are the Brotherhood of Locomotive Engineers, Brotherhood of Locomotive Firemen and Enginemen and Switchmen's Union of North America.

The injunction was obtained by the government from Justice T. Alan Goldsborough in the United States District Court for the District of Columbia. After the three unions and management settled their wage and rules dispute, the government relinquished control of the roads; and the Department of Justice moved for dismissal of the injunction. Judge Goldsborough denied the motion, thus upholding the brotherhoods' contention that they should have full opportunity to test the injunction's legality in appeals to higher courts. The government then appealed to the United States Circuit Court of Appeals for the District of Columbia, asking that court to dismiss the injunction or to remand the case to Judge Goldsborough's court with instructions requiring a dismissal order there.

The brotherhoods thereupon filed their petition in the Supreme Court, asking an order requiring the circuit court to certify the record in the case to the Supreme Court for review. The court's November 15 action was a denial of that petition. Meanwhile the case is still pending in the circuit court which had agreed to defer its consideration of the matter until the Supreme Court acted.

ELECTRIC STREAMLINER INAUGURATED—The three-unit electrically propelled "City of Decatur" went into service on the Illinois Terminal between Decatur, Ill., Springfield and St. Louis, Mo., on November 7. The first unit of the articulated train has—in addition to the motorman's cab—baggage space, reclining seats for 40 passengers, and a seat and desk for the conductor. The second unit seats 52 passengers in individual reclining seats and has dining space for four. The parlor-coach seats 21—all space is reserved—and includes a kitchen and dinette with table space for 12. The "City of Decatur," receipt of which was announced in *Railway Age* of October 23, page 58, will be followed by two similar trains operating between Peoria, Ill., Springfield and St. Louis. The train was built by the St. Louis Car Company. Underframes are of high-tensile, low-alloy, all-welded steel construction. The bodies are built of extruded aluminum sections, aluminum sheets and castings. All trucks are roller-bearing equipped. The parlor coach (below) is decorated in pastel blue

American Society of Civil Engineers Honors Colonel J. M. Johnson

Colonel J. Monroe Johnson, a member of the Interstate Commerce Commission and director of the Office of Defense Transportation, was among 12 persons presented with life membership certificates to the Washington, D. C., section of the American Society of Civil Engineers at ceremonies held in Washington on November 9.

Long Island Adds 2 Trains; Extends Run of Another

Two new morning rush-hour trains to Brooklyn began operation on the Long Island, and the run of a third train was extended, on November 15, providing 1,161 more seats for passengers, it was announced on November 11 by Eugene L. Hoffmann, superintendent. "Operation of the new trains has been made possible," Mr. Hofmann said, "by delivery of the first 10 new double-deck cars, which went into service as a unit last week, releasing other cars for this purpose, and by a reduction in the number of cars in the shops for repairs."

Freight Car Loadings

Loading of revenue freight for the week ended November 6, which included a holiday, totaled 843,166 cars, the Association of American Railroads announced on November 12. This was a decrease of 88,584 cars, or 9.5 per cent, below the preceding week, a decrease of 67,004 cars, or 7.4 per cent, below the corresponding week in 1947, and a decrease of 70,179 cars, or 7.7 per cent, below the corresponding week in 1946. Carloadings for the week ended November 13 were not available as this issue went to press,

Lady Railroaders Told to Play Up Carriers' "Appeal to Women"

Railroad women can perform an important job for the carriers by educating women and children for rail travel, A. G. Bloom, general passenger agent of the Union Pacific at Salt Lake City, Utah, told members of the National Association of Railroad Women at the association's fifth annual meeting, held at Sun Valley, Idaho.

Mr. Bloom asserted that children are air-minded to a great extent and that "it behooves us to do something about it before we lose the travel of our new generation." He also emphasized the need for the railroads "to appeal to women." He pointed out that the air lines are striving to make air

travel more popular with women and suggested that women railroad employees watch for passenger service improvements which would appeal to their sex. In addition, he advised those present to suggest railroad advertisements which will interest women.

Women representing 12 railroads who attended the three-day meeting also heard addresses by Miss Virginia Hess, inspector, maintenance of equipment, Pennsylvania, who spoke on "A Plan for Maintenance of Equipment"; Mrs. Joan Beckham, passenger representative, New York Central, who reviewed the inauguration of the new "Twentieth Century Limited" and described its equipment; and Miss Ruth Callender, manufacturer's representative for King Leathers, Inc., who discussed "Service." The meeting was presided over by Miss Wanda Myers, assistant to the general passenger traffic manager of the Southern.

The following officers were elected for the coming year: president, Mrs. Beckham; first vice-president, Inez DeVille, field editor, Baltimore & Ohio Magazine; second vice-president, Vera Elvert, superintendent of stewardess service, Gulf, Mobile & Ohio; secretary, Evelyn Power, passenger representative, New York, New Haven & Hartford; treasurer, Norma Thompson, supervisor of courier nurse service, Atchison, Topeka & Santa Fe; and member-at-large, Irene Rieke, assistant secretary, Minneapolis & St. Louis.

Forwarder-Trucker Pacts

The Interstate Commerce Commission has assigned to its Bureau of Traffic the administrative work in connection with the filing of agreements between freight forwarders and motor carriers under section 409 (a) of the Interstate Commerce Act. The agreements were authorized by the commission in a recent report wherein it prescribed terms and conditions under which the forwarders may utilize the services and instrumentalities of the truckers (see *Railway Age* of October 9, page 74).

Says Less Business Plus Higher Costs Would Spell Bankruptcy

Any substantial reduction in the volume of business or substantial increase in operating costs would quickly take the railroads in the direction of bankruptcies and reorganization proceedings such as prevailed during the 1930's, Leo T. Crowley, chairman of the board, Chicago, Milwaukee, St. Paul & Pacific, said in a recent address before a group of business men at Green Bay, Wis. He added, however, that "I am not expecting another such experience."

Speaking of the means by which railroad customers can help, Mr. Crowley, said: "First of all, we desire your good will. Of course, we expect to earn it, and, if we do earn it by the service we render, we expect a fair break on the available business. In the next place, your advice, criticism and constructive suggestions, made to responsible railroad officers, are extremely helpful."

At another point, the Milwaukee Road executive attributed the failure of the carriers to earn an adequate return to the fact that they must spend huge sums to rebuild their war-worn equipment. This situation can be improved, he said, by shortening the lag between increases in wages and increases in rates, and by greater efficiency in operation, improvement in equipment and by debt reduction on the part of the railroads. Great strides have been made in the direction of the latter, he stated.

Equipment Depreciation Rates

Equipment depreciation rates for the Chicago Great Western and Bangor & Aroostook are among those prescribed by the Interstate Commerce Commission in a new series of sub-orders in the general proceeding, Depreciation Rates for Equipment of Steam Railroad Companies. In both cases, the present sub-orders are modifications of previous sub-orders.

The new rates for the C.G.W. are: Steam locomotives, 3.05 per cent; other locomotives, 4.59 per cent; freight-train cars, owned, 3.01 per cent, leased, 3.6 per cent; passenger-train cars, 3.4 per cent; work equipment, 4.13 per cent; miscellaneous equipment, 19.32 per cent. The new B. & A. rates are: Steam locomotives acquired new, 3.08 per cent, acquired second-hand, 20.89 per cent; other locomotives, 4.9 per cent; freight-train cars, all-steel, 3.81 per cent, cabooses, 2.72 per cent, other 3.45 per cent; passenger-train cars, all-steel, 3.09 per cent, other, 2.51 per cent; work equipment, 3.38 per cent; miscellaneous equipment, 20 per cent.

Dismiss Negroes' Complaints Against Southern Diner Rules

Present dining-car regulations of the Southern, which provides separate accommodations for white and Negro patrons, are not in violation of the Interstate Commerce Act or the Federal Constitution, according to a recent decision by a three-judge court sitting in United States District Court at Baltimore, Md. The court dismissed the complaint of Elmer W. Henderson, which was being litigated for the second time, and its decision was followed shortly afterward by Justice Holtzoff of the United States District Court for the District of Columbia, who dismissed a similar complaint brought by Cameron Chesterfield Alleyne and Bettye L. Alleyne.

The three-judge court consisted of Justice Soper of the federal circuit court, who dissented, and Justices Coleman and Chestnut of the district court who comprised the majority. The Henderson case with which they dealt involved an appeal from the determination made by the Interstate Commerce Commission in its report on further hearing (see *Railway Age* of October 4, 1947, page 87). The commission proceeding was docketed as No. 28895.

Complainant Henderson sought reparations on the basis of allegations that he was subjected to undue and unreasonable prejudice by the regulations in effect when he claimed he was refused service in the dining car of a Southern train between Washington, D. C., and Atlanta, Ga., on May 17, 1942. The commission's original report found that the complainant had been subjected to undue and unreasonable prejudice, but that there was no basis for an award of reparations.

The regulations in effect when Mr. Henderson made his journey provided that two tables in the diner would be curtained off for the use of Negro passengers; but they permitted the use of those tables for white passengers if all other seats had been taken and no colored passengers had presented themselves for meals. That had been done when Mr. Henderson appeared in the diner, and the steward refused to seat him at one of the tables purportedly reserved for Negroes but partially occupied at the time by white patrons.

Those regulations were assailed by the complainant in his first appeal to the courts; and he got a three-judge-court decision (also in the district court at Baltimore) that remanded the case to the commission for further consideration. That court did not question the commission's authority to approve segregation, but it stated that if white passengers are seated at tables reserved for colored passengers, "then equality of treatment requires that a colored passenger subsequently applying for service should be seated at any available seat in the dining car."

After that decision, the regulations now in effect were established. They provide that a specified table, seating four persons, be curtained off and reserved "exclusively for colored passengers," and that the other tables in the diner "shall be reserved exclusively for white passengers." In its report on reconsideration, the commission found these new regulations to be in accord with the court's decision, and also affirmed other findings of its prior report. Mr. Henderson then went to court with his second complaint.

The opinion dismissing it summarized the court's conclusions as follows: "Racial segregation of interstate passengers is not forbidden by any provision of the Federal Constitution, the Interstate Commerce Act or any other act of Congress as long as there is no real inequality of treatment of those of different races. Allotment of seats in interstate dining cars does not per se spell such inequality as long as such allotment, accompanied by equality of

meal service, is made and is kept proportionately fair. This necessity was recognized by the commission in its report on which the order now approved by us is based."

The District of Columbia case was a complaint filed directly with the court, without prior proceedings before the I.C.C. The Southern, which was again defendant, objected to this by-passing of the commission; but Justice Holtzoff did not rule on that point. On the basis of the Baltimore decision, he granted the Southern's motion for summary judgment, ruling that the assailed diner regulations were lawful.

I.C.C. Accounting Order

The Interstate Commerce Commission has issued an order modifying the Uniform System of Accounts for Steam Railroads so as to require charging the cost of constructing dikes and new channels for streams to investment. The charges will be to road and equipment Account 3-Grading.

Unless otherwise ordered, the modification becomes effective January 1, 1949; but any interested party may file a statement with the commission on or before November 30, setting out reasons why the modification should not become effective as ordered and requesting oral argument.

Receiverships and Trusteeships As of June 30 Listed by I. C. C.

Forty-four railroads, including 16 Class I carriers and 28 others, were in receivership or trusteeship as of June 30, according to a recent compilation of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The total operated mileage involved was 15,100.

As of December 31, 1947, 52 roads, including 17 Class I carriers and 35 others, were in receivership or trusteeship, their total operated mileage being 22,750. This was 9.55 per cent of all operated steam mileage, as compared with 14.38 per cent as of December 31, 1946, and 16.59 per cent as of December 31, 1945.

The drop in the number of roads and mileage under reorganization on June 30 as compared with the close of last year was due to the emergence from trusteeship of the 7,650-mile Rock Island system which includes the Chicago, Rock Island & Pacific and seven affiliated companies.

The report notes that no carriers were placed in receivership or trusteeship during the period January 1 to June 30, inclusive.

Status of Allegheny & South Side

Division 3 of the Interstate Commerce Commission has found that the Allegheny & South Side, a switching line in Pittsburgh, Pa., is not a common carrier by railroad subject to the Interstate Commerce Act. The proceeding was docketed as No. 29901, and the commission's decision adopts the recommended findings of a proposed report by Examiner E. L. Boisseree (see *Railway Age* of July 31, page 48).

A previous commission decision of 1921 made like findings; but the present proceeding was instituted as a result of an inquiry from the Bureau of Internal Revenue as to whether the earlier determination still represented the view of the commission. The Brotherhood of Railroad Trainmen intervened, and sought a finding that the road was a common carrier, desiring, as the commission put it, "to support its view that the respondent is an employer and a carrier" as those terms are used in the Railway Labor Act and Railroad Retirement and Unemployment Insurance Acts. Part of the B. of R.T. presentation was a favorable opinion supplied by the general counsel of the Railroad Retirement Board.

Alaska Railroad to Operate Barges

To "insure the movement of essential food supplies and construction materials" to Alaska, Acting Secretary of the Interior C. Girard Davidson has directed the Alaska Railroad to operate three government barges between Seattle, Wash., Tacoma, and Alaska ports. The barges were obtained by the D. of I. in June from Navy surplus.

Higher Rates Offset Lower Weights on Liquified Gas

The Interstate Commerce Commission has ordered a reduction in the estimated weight per gallon under which liquified petroleum gas moves within Official Classification territory and between that territory and the South and Southwest, but revenue losses will be avoided as a result of an accompanying authorization which permits the railroads to establish a higher basis of rates for application in connection with the lower estimated weight. The latter, which must be established on or before January 27, 1949, will be 4.7 lb. per gallon as compared with the present estimated weight of 6.6 lb.

The commission's report was in I. & S. Docket No. 5440, Liquified Petroleum Gas in Official Territory, and it embraced also 14 complaint proceedings wherein the present rates and estimated weights on that commodity were assailed. The dissent of Commissioner Mahaffie was noted, while Commissioner Splawn filed a dissenting-in-part expression in which Commissioners Aitchison and Alldredge joined.

The title case involved suspended tariffs wherein railroads in Official territory proposed to cancel their present rates and estimated weights on liquified petroleum gas in tank-car loads, and establish in lieu thereof fourth-class rates (50 per cent of first class) based on the actual weight of the lading. The commission had been prescribing the 4.7-lb. estimated weight in cases involving rates on the liquified gas, and the railroad proposal was designed to preserve their revenues from the transportation of that commodity in the event the 6.6-lb. weight was found unreasonable. Traffic tests indicated that rates applicable in connection with that estimated weight averaged about 31.1 per cent of first class.

The suspended tariffs were originally filed to become effiective November 15, 1946. At the hearing, the railroads, as the commission put it, "did not undertake to justify the schedules under suspension but, instead, proposed rates on the basis of 45 per cent of first class in connection with an estimated weight of 4.7 lb. per gallon." The effect of the commission's decision is approval of that proposal. As noted above, it prescribed a 4.7-lb. estimated weight; and it required cancellation of the suspended tariffs, "without prejudice to the establishment of rates equal to 45 per cent of the first-class rates . . . in effect December 31, 1946, plus the subsequent general increases."

The 4.7-lb. estimated weight was also prescribed for application in connection with interterritorial movements involved in the complaint proceedings; but reparations claims were barred by the accompanying finding which held that the present estimated weights were "not shown to have been unreasonable in the past." Meanwhile it was found that the rates assailed in the complaint proceedings "are not shown to have been or to be unreasonable."

Women Railway Employees

Class I railways had 65,799 women employees as of the middle of July, an increase of 1,169 over the mid-April total of 64,630, but the proportion of women employees to total employees decreased from 5.14 per cent to 4.83 per cent, according to the latest report on the subject by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The total of 65,799 women employees in July compares with a July, 1947, total of 70,700. The totals of all employees at the same times were 1,361,496 and 1,383,618, respectively.

As compared with mid-April, there were increases in the mid-July figures in three employment groups. The largest increase was in the professional, clerical and general category, for which the mid-July total was 52,930, as compared with a mid-April total of 52,015.

There were 6,097 women employed in maintenance of equipment and stores, as compared with 6,113 last mid-April; 6,577, as compared with 6,280, in transportation work, other than train, engine and yard; and 123, as compared with 128, in maintenance of way and structures.

Other mid-July tabulations show 17 women in the executives, officials and staff assistants groups; 25 among the switchtenders, and 30 in train and engine service.

Bright Spots in Railroads' Status, Now Compared With 1929

I— DEBT & CHARGES	Yr. '29	Yr. '47	% Change
	000,000's omitted		
Non-Equip. Fixed Debt	$9,306	$6,621	— 28.9
Contingent Debt	469	945	+101.5
Annual Fixed Charges	681	434	— 36.2
Ann. Cont. Int. Req.	11	28	+ 60.7

II— FINANCES	12/31/29	12/31/47	
	000,000's omitted		
Cash, etc.	$ 817	$2,045	+150.3
Current Assets	$1,717	$3,576	+108.2
Current Liab.	1,477	1,952	+ 32.1
Net Working Capital	$ 240	$1,624	+576.6
Capital & Other Res. Fds.	—0—	$ 280	
Maintenance Funds	—0—	16	

III— 5-YR. RECORD OF NON-EQ. TR. MATURITIES	Faced at Close '29	Faced at Close '47	Amount Refundable Yrs. '49-'52
	000's omitted		
Year 1930	$464,045	Year 1948 $ 70,489	$ —0—
Year 1931	245,216	Year 1949 106,357	58,065
Year 1932	145,461	Year 1950 40,571	27,637
Year 1933	218,292	Year 1951 103,523	88,047
Year 1934	275,904	Year 1952 276,498	221,556

IV— EQUIP. COMPARISON	Yr. '29 or 12/31/29	6/1/48	% Change
Locos. (excl. elec.)	56,936	34,109	— 40.0
Oil (units)	34	4,741 (Diesel only)	
Avg. Frt. Tr. Load	804 Tons	1,148('47)	+ 42.5
Avg. Frt. Loco. Daily Mi.	91.2 Mi.	120.0('47)	+ 31.5
Freight Cars	2,277,505	1,744,173	— 23.4
Avg. Frt. Car Capac.	46.3 Tons	51.3 Tons('47)	+ 10.7
Avg. Daily Car Mi.	34.4 Mi.	48.8 Mi.('47)	+ 41.8
Net Ton-Mi. Per Frt. Train Hour	10,580	18,126('47)	+ 71.3
Class I Ton-Mi. (billions)	447	654	+ 46.3

V— WAGE INCREASES & RATIO TO TOTAL OPER REV.	Year 1929	Year 1947	% Chge.
	000's omitted		
Total Oper. Rev.	$6,279	$8,684	+ 38.3
Total Compens.	2,896	4,350	+ 50.2
No. Employees	1,660	1,351	— 18.6
Avg. Annual Wage Per Employee	$1,744	$3,219	+ 84.5
Ratio Compens. to Total Oper. Rev.	46.1%	50.0%	+ 8.4

VI— MODERN ACCOUNTING PRACTICE BENEFITS	Yr. '29	Yr. '42	Yr. '47
	000's omitted		
Rdwy. Depr.	$ 590	$ 40,766	$122,300
Eqp. Depr.	208,841	205,455	230,556
Total Depr.	$209,431	$246,221	$352,856
Est. Eq. Tr. Mat. for Subs. Yr.	111,548	78,825	90,194
Excess of Depr. over Eq. Tr. Mat.	97,883	167,396	262,662
Annual Fixed Charges	681,000	658,000	434,000
Reported Net Income	896,806	937,522	479,986

Table Courtesy McLaughlin, Reuss & Co.

Roads Better Able to Stand Slump Than in '29, Says Wall Streeter

The railroads as a whole are much better able now to stand a recession than they were even in the "good days" of 1929, in the opinion of W. Wendell Reuss, partner in McLaughlin, Reuss & Co., of New York, as expressed in a public address before the annual meeting of the American Life Convention at Chicago in October and subsequently in informal talks with groups of investors and analysts in that city. The speaker expressed the belief that, as compared with 1929—when the railroads were considered reasonably prosperous—they now have "far less" debt and fixed charge requirements; vastly improved working capital; far fewer non-refundable debt maturities in the near future; less, but more modern, equipment; lower employment in relation to work done; and "an unrecognized safety factor, in terms of fixed charges, equal to nearly 60 per cent of such requirements, resulting from the cash excess of depreciation charges over and above equipment trust maturities."

Mr. Reuss asserted that the investing public rate the railroads' financial strength too low because they overlook certain significant measurements thereof. He pointed out, in example, that the railroads have a cash income considerably in excess of their reported net income, resulting from the excess of depreciation charges over equipment trust maturity needs and in terms of fixed charge requirements. In 1929, when depreciation of roadway was a minor or non-existent charge against income, total depreciation was but $209 million, in the face of $681 million in fixed charges, while, in 1947, depreciation was up to $353 million, contrasted with greatly reduced fixed charges of $434 million.

September Accident Statistics

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for September and for this year's first nine months. The compilation, which is subject to revision, follows:

Item	Month of September 1948	Month of September 1947	9 months ended September 1948	9 months ended September 1947
Number of train accidents*	937	1,313	9,089	12,487
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	161	139	1,104	1,093
Injured	125	126	882	914
Passengers on trains:				
(a) In train accidents*				
Killed	...	...	17	33
Injured	13	16	768	1,044
(b) In train-service accidents				
Killed	1	3	19	25
Injured	185	229	2,048	2,169
Travelers not on trains:				
Killed	1	1	6	7
Injured	75	59	751	684
Employees on duty:				
Killed	45	40	427	536
Injured	2,546	2,818	23,334	27,035
All other nontrespassers:**				
Killed	150	158	1,212	1,441
Injured	486	474	4,600	4,772
Total—All classes of persons:				
Killed	358	341	2,785	3,135
Injured	3,430	3,722	32,383	36,618

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of more than $150 to railway property in 1947. Beginning January 1, 1948, this minimum was raised to more than $250. Only a minor part of the total accidents result in casualties to persons.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

Persons:				
Killed	138	133	1,100	1,283
Injured	332	294	2,858	2,888

Proper Rail-Truck Coordination Urged by C.N.R. Officer

Canadians will continue to pay extraordinary costs for land transportation until they insist "upon a national transportation policy and means to insure its proper functioning," G. R. Johnston, assistant transport economist, department of research and development, Canadian National, said in a recent address at Ottawa, Ont.

Due to the "uneconomic struggle" between railway and highway transport, failure to adopt and execute such a policy will result in "increasing annual losses that will reach such proportions as seriously to embarrass Canadian industry in absorbing them in the cost of production." Both the "highway vehicle" and the railways are valuable to the transportation industry. "It is therefore reasonable," Mr. Johnston said, "that proper coordination of these two media to the end that each performs the service for which it is best fitted, would be in the national interest.

"The users of the highways are not fully paying for them. A large portion of the cost is not being paid at all, but is merely being passed on to the future. Practically every investigating body that has looked into the question of payment for the use of highways has agreed that heavy commercial vehicles are not paying their share.

More than 80 veteran Southern Pacific commuters saw much to laugh at in this skit presented at the railroad's recent luncheon at San Francisco, Cal., honoring those commuters with 30 or more years' "experience"

"In 1939, it is estimated that truck competition cost Canadian railways in excess of $100 million, of which $75 million represented a loss in traffic to the truck and $25 million a loss due to rate reductions to hold other competitive traffic on the rails. In 1947 the loss probably amounted to $130 million."

A basis of regulation for railways and highway vehicles might be the fact that the truck, according to Mr. Johnston, "is the economic carrier in the short haul field, while the railway is the cheaper in the long haul."

Texas Intrastate Rates

The Interstate Commerce Commission has postponed from November 26 to a date to be fixed oral argument with respect to its investigation into the refusal of the Railroad Commission of Texas to authorize railroads operating within that state to apply the Ex Parte 166 increases to intrastate freight rates on various commodities. The proceeding is docketed as No. 30024.

C. & N. W. Commuters "Vote" on How They Want Cars Decorated

Commuters of the Chicago & North Western this week concluded 10 days of "voting" on interior decoration plans developed by the road in preparation for the improvement of nearly 100 suburban coaches. The plan which receives the largest number of votes is to be adopted as standard for all coaches involved in the railroad's suburban rehabilitation program initiated earlier this year.

The "polling place" was a commuter coach in which were shown four different types of interior treatment. Passengers were furnished special ballots to register their choice and to offer comments and suggestions. The poll will determine specific colors and materials to be used in converting roller-bearing steel and aluminum cars into deluxe-style coaches, featuring attractive pastel colors, bright seat upholstering, colorful tile floor covering and other improvements designed for greater attractiveness and comfort.

Space Reservation Probe

The Interstate Commerce Commissions has set back to January 24, 1949, its scheduled January 18 hearing at Miami, Fla., with respect to its investigation of railroad and Pullman Company rules governing the reservation, sale and redemption of sleeping car, parlor car and reserved-seat coach tickets. Commissioner Mitchell and Examiner Mullen will preside (see *Railway Age* of October 16, page 81).

Proposes C.O.D. Rules For Motor Carriers

Examiner James J. Williams has recommended in a proposed report that the Interstate Commerce Commission prescribe rules and regulations governing handling of c. o. d. shipments and collection and remittance of c. o. d. funds by motor carriers subject to Part II of the Interstate Commerce Act. The proposed report is in Ex Parte No. MC-42, an investigation of the matter which the commission instituted last year.

Eight rules were recommended by the examiner, his proposal being a modification of a five-rule plan prepared by the commission's Bureau of Motor Carriers and served by the commission with its order instituting the proceeding. Under the examiner's proposal, intervening railroads and freight forwarders, who pointed out that they publish c. o. d. rules in their own tariffs, would get what they wanted in the way of specific exemption for truckers whose services they utilize. The recommended "applicability" rule provides that the regulations shall not apply to truckers "which perform services auxiliary to or supplemental of rail transportation and on railroad bills of lading," nor to those which perform services "for the forwarders and on freight forwarder bills of lading."

Mechanically Refrigerated Car Tested In Service

Tests of the first mechanically refrigerated railway car to be placed in operation are now being completed on the Canadian National. The car, designed in Vancouver, B. C., by the Dominion Fisheries Experimental Station, recently took a shipment of Delnor frozen fruits and vegetables from New Westminster, B. C., to Edmonton, Alta., as the first in a series of experiments which will extend into next summer.

The experimental station's observer on the trip said that the temperature in the car was held at 12 deg. below zero most of the way, that unloading temperature was 10 deg. below and that once on the trip, as a test, the temperature was driven down to 17 deg. below. One freezing unit was used on the car. Next summer tests will be run to determine how cold produce can be kept in hot weather by one unit. The freezing unit can, by the flip of a switch, be changed to a heater to prevent freezing in sub-zero weather.

September Truck Traffic

Motor carriers reporting to the American Trucking Associations transported in September 2,807,215 tons of freight, an increase of 2 per cent over the August total of 2,752,325 tons and an increase of 12.8 per cent over the 2,489,496 tons hauled in September, 1947. The A.T.A. index number, based on the 1938-40 average monthly tonnage of the reporting carriers, reached an all-time high of 248.

The September figures, according to the A.T.A., are based on comparable reports from 287 carriers in 44 states. Carriers in the Eastern district reported increases of 0.7 per cent above August and 9.5 per cent above September, 1947; carriers in the Southern region reported respective increases of 9.9 per cent and 29 per cent; and carriers in the Western district reported increases of 1.4 per cent and 12.7 per cent, respectively.

St. Louis Traffic Club Forms Reserve Unit

Following the lead of the railroads in sponsoring reserve organizations in the Military Railway Service, the Traffic Club of St. Louis has agreed to sponsor a traffic regulating group, representing another important function of the Transportation Corps of the Army.

To permit activation of the unit as a reserve component, it will be necessary to secure and organize the au-

thorized officer strength. To carry out this function, Lt. Col. Walter P. Schindel, a member of the club, has been recommended and accepted by the Army as commanding officer.

A traffic regulating group has the job of supervising and controlling movement of all traffic through a given area. In actual practice the group is generally divided into teams and placed at strategic points, organized into headquarters, rail, highway, air, and inland waterways sections.

Kettering Addresses Petroleum Men at Chicago

"As long as the sun shines, and unless we become stupid, we shall never run out of energy," Dr. Charles F. Kettering, retired vice-president of General Motors Corporation assured the 28th annual meeting of the American Petroleum Institute at the Hotel Stevens in Chicago on November 10. Dr. Kettering who was research manager of G.M. for many years, said that "in oil and coal we have the storehouse of a certain kind of energy which we really don't understand very much about."

The speaker predicted that scientists would some day learn how to catch energy from the sun, but was of the opinion that the secret would not be learned soon. "We need to recognize that there is much we do not know," declared Dr. Kettering.

He spoke immediately after he was awarded the A.P.I.'s Gold Medal of Achievement for his many contributions to science. Dr. Kettering is the third recipient of the award, the highest honor of the institute.

Additional General News appears on pages 234-236 and 247-249.

ORGANIZATIONS

The Transportation Department Committee, National Council of the **Young Men's Christian Association,** has elected Perry M. Shoemaker vice-president and general manager, Delaware, Lackawanna & Western, to its membership.

The **American Association of Railway Surgeons** will hold its sixtieth anniversary meeting on November 21-23, inclusive, at the Palmer House in Chicago.

The French National Railroads, 610 Fifth avenue, New York 20, have announced the opening of the **Interallied Railroad Club** in Paris, France, to facilitate contacts between officers of the French Railroads and those of friendly foreign nations. The club is temporarily located at 11, rue de Milan, Paris, 8éme.

The 1949 meeting of the **Freight Claim Division, Association of American Railroads,** will be held in Boston, Mass., on June 14, and will continue in session, if necessary, through June 16.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

The **Chicago, Rock Island & Pacific** has been authorized by its board of directo purchase 100 70-ton covered hoppers from the Pullman-Standard Car Manufacturing Company.

PASSENGER CARS

The **Bangor & Aroostook** has ordered three streamlined, air-conditioned coaches from the Pullman-Standard Car Manufacturing Company. The cars, each of which will accommodate 80 passengers, will have Sleepy Hollow seats, wide vision windows and fluorescent lights. Each car will have a smoking compartment with individual lounge chairs separated from the rest of the car by a plate glass partition. Delivery is expected in June, 1949, when the cars will be placed in service on the "Aroostook Flyer" between Bangor, Me., and Van Buren.

LOCOMOTIVES

The **Indian Government Railways** have ordered 100 steam passenger locomotives of the 4-6-2 type costing approximately $14,000,000. Sixty of the locomotives will be built by the Montreal Locomotive Works and 40 by the Canadian Locomotive Company. Delivery is scheduled for 1949.

The **Detroit Terminal** has ordered two 1,000-hp. Diesel switchers from the Electro-Motive Division of General Motors Corporation, for delivery during May, 1949.

CONSTRUCTION

New Freight Facilities At Denver

The Denver & Rio Grande Western has begun construction of a new yard on the northern outskirts of Denver, Colo., to be used by its freight trains and by those of the Chicago, Rock Island & Pacific. The layout will include approximately 18 miles of track, a 16,000-ton capacity ice house and a new two-story yard office with tower, and will be located north of West 48th avenue and west of the present Rio Grande main line.

The Rock Island will build a line more than a mile long from the Union Pacific tracks—over which it enters Denver—to reach the new North yard. The improvements are expected to cost each road approximately $1,000,000.

The Rio Grande plans to complete the yard about July 1, 1949, at which time the present facilities at Utah Junction will be retired. A contract for grading, which will involve some 200,000 yards, has been awarded to the Hinman Brothers. All other work on the project will be handled by company forces.

The new facilities, reports the Rio Grande, will advance the departure of trains connecting with the Chicago, Burlington & Quincy and trains handling Rock Island business; decrease the time required to deliver stock to the Union Stockyards after arrival in Denver and to return empties, thereby improving service to shippers and increasing the availability of stock cars during peak movements; provide icing facilities for perishable shipments delivered to connections; provide a speedier distribution of all eastbound business; and reduce congestion at the Seventh Street yard and permit quicker handling of industrial business in that area which, in turn, will result in a substantial reduction in car delays.

ABANDONMENTS

Chicago, Burlington & Quincy.—Examiner J. S. Prichard has recommended in a proposed report that Division 4 of the Interstate Commerce Commission authorize this road to abandon that portion of its line extending from a point near Clearmont, Mo., to a point near Shambaugh, Iowa, 10.4 miles. The segment has not been operated since June 6, 1947, following a flood which damaged portions of the track. The examiner commented in part that additional trucking costs to be incurred by shippers affected by the proposed abandonment will be "very small" as compared to the losses which would accrue to the Burlington through rehabilitation and operation of the line.

Pennsylvania.—Division 4 of the Interstate Commerce Commission has authorized this road's subsidiary, the Pennsylvania & Atlantic, to abandon a line between Toms River, N. J., and Bay Head, 18 miles. Through rail service between those points was suspended in December, 1946, when fire destroyed a

portion of a bridge connecting Barnegat Pier with Seaside Park. The application was approved subject to the condition that the P. & A. sell that portion of the line between the Delta Yacht Basin, about 4,000 ft. south of Bay Head, and the point in Bay Head where the line connects with the New York & Long Branch, to any person, firm or corporation offering, within 40 days from the date of the commision's certificate, to purchase the segment for continued operation, and willing to pay not less than the net salvage value of the property which they may seek for such purpose. The N. Y. & L. B. is owned equally by the P. R. R. and Central of New Jersey.

Division 4 of the Interstate Commerce Commission has **authorized:**

Lehigh & New England.—To abandon a line extending approximately 2 miles from a point near Wind Gap, Pa., to a point near Pen Argyl. The segment, over which no trains have operated since 1946, constituted the remainder of the L. & N.E.'s Nazareth branch, the other 9.9 miles of which were abandoned in 1939.

Application has been filed with the I.C.C. by:

Southern Pacific.—To abandon operation over a line owned by the Central Pacific extending from a point near Mina, Nev., to a point near Tonopah Junction, approximately 7.9 miles. Authorization to abandon the segment also is sought by the C.P. The applicants said that the only purpose of the line in recent years has been to form a connection with the Tonopah & Goldfield, abandonment of which has been authorized by the commission.

FINANCIAL

Wisconsin Central. — *Reorganization.*— The Interstate Commerce Commission has permitted G. A. Gaston, Keystone Custodian Funds, Inc., Clarence Copeland, L. S. Zimmerman, Abraham Watner, Charlotte Stemmler, Stein Bros. & Boyce, O. M. Whitner, O. E. Gilbert, Dorothy Gilbert and J. S. Markham, constituting a group of holders of the debtor's first general mortgage 4 per cent bonds of 1949 to intervene in the Finance Docket No. 14720 proceeding, pertaining to the reorganization of this road. The intervenors told the commission that the group collectively owns $1,877,000 of the bonds.

New Securities

Application has been filed with the Interstate Commerce Commission by:

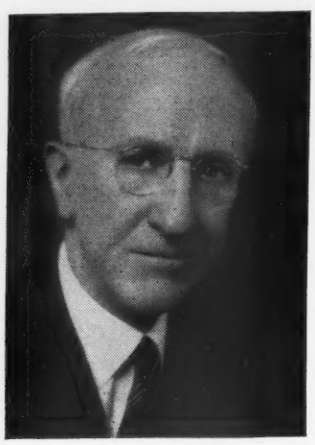
Chesapeake & Ohio.—To issue and sell $40,000,000 of series H refunding and improvement mortgage bonds, proceeds of which will be used to reimburse the applicant's treasury in part for capital expenditures made for additions and betterments (see *Railway Age* of October 30, page 102). The bonds, to be sold on the basis of competitive bids, will be dated December 1 and will mature December 1, 1973.

Chesapeake & Ohio.—To assume liability for $4,200,000 of equipment trust certificates, the proceeds of which will be applied toward the purchase of equipment estimated to cost $5,334,845, as described in *Railway Age* of October 16, page 88. The equipment includes 1,100 70-ton all-steel hopper cars and 5 1,000-hp. Diesel-electric switching locomotives. The certificates will be dated November 15 and will mature in 10 annual installments of $420,000 starting November 15, 1949. The report also approves a selling price of 99.52 with a 2⅜ per cent interest rate, the bid of Salomon Brothers & Hutzler, and associates, on which basis the average annual cost will be approximately 2.35 per cent.

RAILWAY OFFICERS

EXECUTIVE

Eugene Morris, whose retirement as chairman of the Central Freight Association at Chicago, was reported in the *Railway Age* of October 9, was born on July 17, 1869, at Freeport, Ill. He attended the Chicago College of Law and began his career with the C. F. A. and its predecessor organizations as a messenger in 1885. Mr. Morris occupied various positions with the association



Eugene Morris

until October, 1911, when he was appointed chairman. In 1922 he was appointed also chairman of the National Diversion and Reconsignment Committee. Upon Mr. Morris' retirement on September 30, following 63 years with the C. F. A., the Traffic Executive Association paid tribute to him for having earned a "unique and honored place in the railroad industry."

Arthur C. Jepson, whose appointment as assistant to vice-president, operating department, Atchison, Topeka & Santa Fe, with headquarters at Chicago, was reported in the *Railway Age* of October 9, was born on July 14, 1900, at Chicago. He was awarded a law degree by the Chicago-Kent College of Law and was admitted to the Illinois bar in 1929. Mr. Jepson began his

Arthur C. Jepson

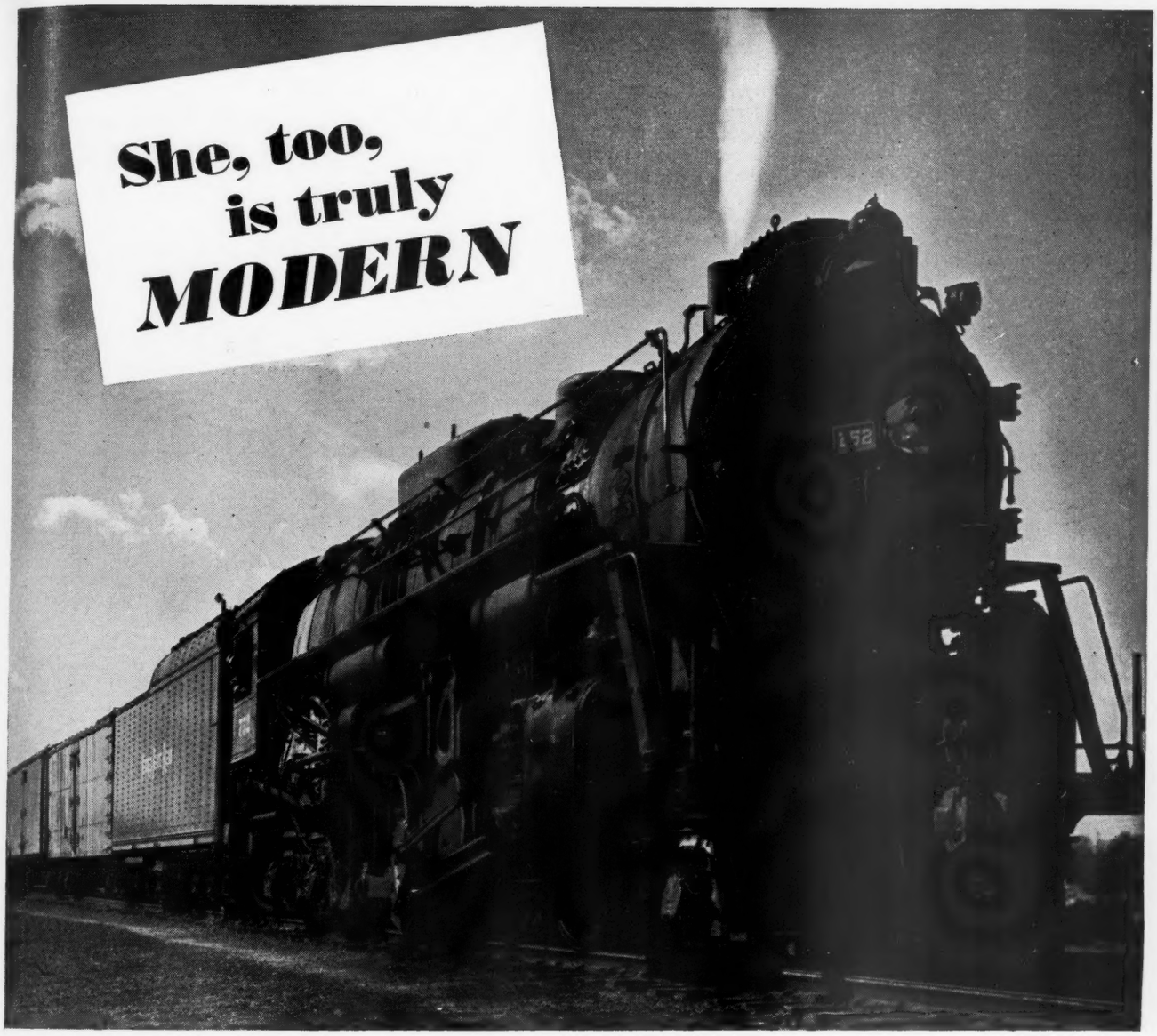
railroad career in 1921 as an assistant file clerk in the office of the Santa Fe's federal manager, which became the office of the vice-president—operating with the termination of federal control. He advanced through various positions to that of system contract supervisor on October 1, 1945, which post he held at the time of his recent appointment.

J. E. Doud, whose appointment as assistant to traffic vice-president of the Atchison, Topeka & Santa at Chicago, was reported in the *Railway Age* of October 9, entered Santa Fe service at Amarillo, Tex., as a messenger boy in 1926. In the following year he was

J. E. Doud

transferred to the traffic department as mail clerk, advancing to head statistical clerk in 1931, to assistant chief quotation clerk in 1935, to assistant chief rate clerk in 1939, and to head traffic clerk in 1942. Mr. Doud was further promoted in 1944 to head rate clerk and, on January 1, 1946, to assistant general freight agent, which

News Department continued on next left-hand page



She doesn't wear chrome trim, and her paint is black, but she, too, is truly modern. She was built for a job — a modern job — and she does it well.

With planned scheduling she can stay on the road 16 and 18 hours a day, 27 or 28 days a month. With proper servicing — and such servicing facilities save more than they cost — she can be turned around in an hour or two. With her modern design, based on progressive engineering, her maintenance costs are low. And with equal attention, she — the modern steam locomotive — will give you more train-miles, more ton-miles, more passenger-car miles per year for each dollar of investment than any other type of motive power.

There is a place for steam, and in this place the *modern* steam locomotive is doing an outstanding job. We are continuing to build such locomotives.

DIVISIONS: *Lima, Ohio* — Lima Locomotive Works Division; Lima Shovel and Crane Division. *Hamilton, Ohio* — Hooven, Owens, Rentschler Co.; Niles Tool Works Co.

PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.

LIMA
HAMILTON
CORPORATION

post he held at Amarillo at the time of his recent appointment.

Frank J. Berry, whose promotion to assistant vice-president of the Northern Pacific at St. Paul, Minn., was reported in the *Railway Age* of October 23, entered the service of the N. P. as a station clerk at La Moure, N. D. He joined the road's traffic department in 1911, at Winnipeg, Man., where he was advanced to general agent in 1920. Mr. Berry was general agent at Spokane,

Frank J. Berry

Wash., from 1923 to 1929, and in the latter year was appointed assistant general freight agent at Seattle, Wash. He was advanced to assistant general freight and passenger agent at Portland, Ore., in 1931, and to western traffic manager at Seattle, in January, 1947, which post he held at the time of his recent advancement.

Paul D. Dorman, whose promotion to assistant vice-president of the Gulf, Mobile & Ohio at New Orleans, La., was reported in the *Railway Age* of October 9, was born on April 3, 1902, at New

Paul D. Dorman

Albany, Miss. He began his railroad career in 1917 with the Gulf, Mobile & Northern (now G. M. & O.), subsequently serving in various clerical positions in the operating department, as rate clerk at Jackson, Tenn., local freight agent at Dyersburg, Tenn., and assistant agent at Laurel, Miss. Mr. Dorman was appointed traveling freight agent at Laurel in July, 1929, and in November of that year he went to Meridian, Miss., as local freight agent. He later held positions successively as chief clerk to general agent (operating department), local freight agent and executive general agent, all at New Orleans. Mr. Dorman was serving in the latter position at the time of his recent appointment.

Peter J. Schardt has retired as assistant vice-president of the Southern system, in charge of mail and express traffic, at Washington, D. C., but, as announced in the *Railway Age* of October 30, will continue on a full-time basis as chairman of the Association of American Railroad's committee on railway mail transportation. A native of Saukville, Wis., Mr. Schardt was born on October 7, 1878, and entered government service in 1901 as a railway postal clerk, becoming superintendent of the New York division, Railway Mail Service, in 1917. In the latter position, Mr. Schardt developed the American Expeditionary Forces Terminal Railway Post Office for the distribution and dispatch of A.E.F. mail to the overseas army in World War I. He was later appointed United States Postal

Peter J. Schardt

Agent in France, serving in that capacity from August, 1918, to November, 1919. In March, 1923, he resigned from government service to become assistant to vice-president in charge of mail and express traffic of the Southern system at Washington, D. C. He became assistant vice-president on April 1, 1942, which position he held until his recent retirement. Mr. Schardt was a delegate to the first international Postal Conference between the United States and Canada, held at Ottawa in December, 1922. During World War II, Mr. Schardt was granted a leave of absence by the Southern to serve with the Office of Military Government for Germany (United States) from June, 1945, to January, 1946, and was subsequently awarded the War Department's Medal of Freedom.

Marshall D. White, whose promotion to assistant to vice-president in charge of mail and express traffic of the Southern at Washington, D. C., was reported in the *Railway Age* of October 30, was born at Broadway, Va., on November 27, 1902. He entered the service of the Southern in April, 1918, as a clerk at

Marshall D. White

Washington, D. C., and in October, 1928, was promoted to manager of the mail room at Atlanta, Ga. Returning to Washington in November, 1935, as mail traffic agent, he was promoted to mail and express traffic agent in August, 1938, and in January, 1945, he became supervisor, mail and express traffic which position he held until his recent promotion.

J. M. Vonau, Jr., general passenger agent in charge of rates and divisions of the Southern Pacific, with headquarters at San Francisco, Cal., has been appointed assistant to traffic vice-president—system, with headquarters remaining at San Francisco.

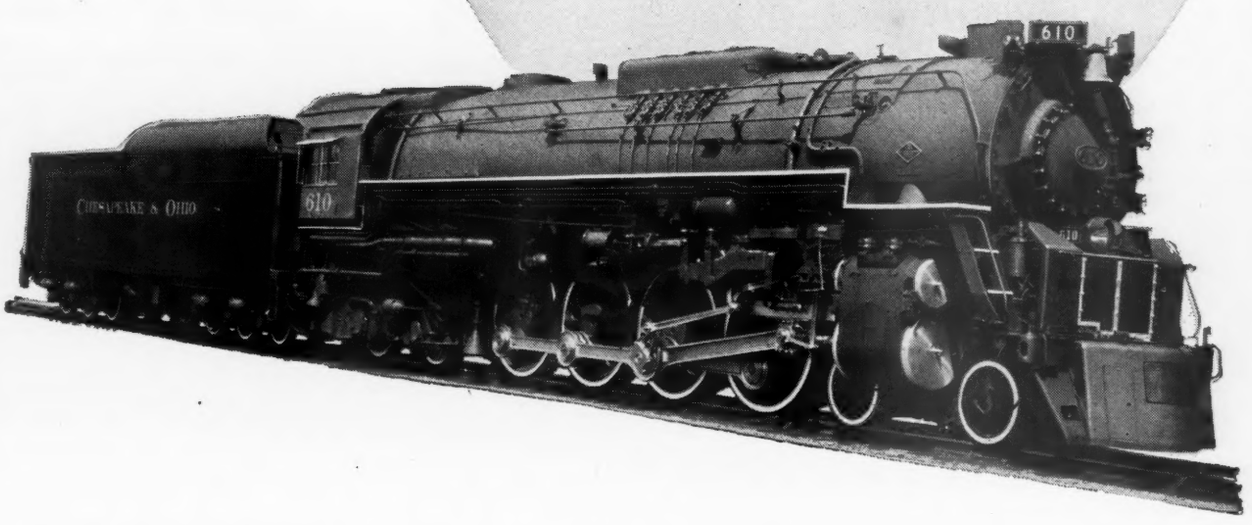
Eugene H. Hite, whose appointment as assistant to vice-president, in charge of personnel and labor relations, of the Railway Express Agency at San Francisco, Cal., was reported in the *Railway Age* of October 30, is a native of Weston, Ore. Mr. Hite began his express career at Pocatello, Idaho, in 1918, and subsequently served as chief clerk to general manager at Los Angeles, Cal., assistant superintendent at Salt Lake City, Utah, and superintendent at Sacramento, Cal. From July 1, 1943, until his recent appointment, Mr. Hite had been superintendent of the Southern California-Arizona-New Mexico division, at Los Angeles.

J. M. Nicholson, assistant to the operating vice-president of the Atchison, Topeka & Santa Fe, has been appointed director of the road's department of research at Chicago. Succeeding Mr.

News Department continued on next left-hand page

81,800 lb. *Tractive Effort*

FOR PASSENGER SERVICE!



THE Chesapeake and Ohio believes in starting passenger trains fast. This takes tractive effort. And they know, from their experience with more than 200 other Booster-equipped locomotives, that the Booster will give them the extra power needed for prompt get-away.

Consequently the five 4-8-4's being delivered by Lima-Hamilton this month — as well as other new and recently modernized C & O locomotives — are equipped with Boosters. These 4-8-4's have an initial tractive effort of 81,800 lbs. — about the highest we know of for strictly passenger service. The Booster provides 12,400 pounds — or 18% of the starting effort of the main engine.

Equipped with Boosters®

FRANKLIN RAILWAY SUPPLY COMPANY

A CORPORATION

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

Nicholson is **John P. Morris,** general assistant, mechanical department.

E. C. Schmidt, executive assistant to the president of the Union Pacific at Omaha, Neb., will retire on December 1, following 21 years of service with the road.

OPERATING

Fred S. Harris, whose appointment as superintendent of terminals of the Chesapeake & Ohio, with headquarters at Chicago, was reported in the *Railway Age* of October 2, was born on August 29, 1903, at Hinton, W. Va. He received his higher education at Brown Preparatory and Bliss Electrical Schools, and began his railroad career in 1924 as a clerk in the maintenance of way department of the C. & O. at Ashland, Ky. Mr. Harris subsequently held positions in that department as material clerk, as assistant engineer at Peru, Ind., and as assistant unit cost engineer at the latter point. He was appointed yardmaster at Danville, W. Va., in 1934; assistant trainmaster at Rainelle, W. Va., in 1942; trainmaster at the latter point in 1944; and trainmaster at Saint Albans, W. Va., in 1947. He was further advanced in 1947 to assistant superintendent at Huntington, W. Va., in which position he was serving at the time of his recent appointment.

Augustus Hart, whose appointment as assistant general manager of the Boston & Albany (New York Central lessee) at Boston, Mass., was reported in the *Railway Age* of October 23, was born at Cardiff, Wales, on April 12, 1897. Mr. Hart entered railroad service on December 1, 1917, as a stenographer in the office of the general superintendent of the New York Central at Cleveland, Ohio, and later served as secretary to general superintendent until he entered the service of the United States Army during World War I. Returning

Augustus Hart

to the New York Central as assistant chief clerk in the office of the general superintendent, he became trainmaster at Toledo, Ohio, on April 1, 1936, and assistant superintendent of the Erie division on October 16, 1942. Mr. Hart was promoted to superintendent of the Cleveland division at Cleveland in April, 1945, transferring in April, 1947, to the Hudson and Mohawk divisions at Albany, N. Y., where he remained until his recent appointment as assistant general manager of the Boston & Albany.

Garret C. White, whose appointment as assistant general manager of the Eastern district of the Erie at Jersey City, N. J., was reported in the *Railway Age* of October 2, was born at Midland Park, N. J., on January 24, 1907, and entered the service of the Erie as a stenographer at Jersey City in 1925. He was appointed secretary to the general manager at Youngstown, Ohio, in 1929; division clerk at Sala-

Garret C. White

manca, N. Y., in 1933; inspector of operation at Cleveland, Ohio, in 1937; and trainmaster at Jersey City in 1939. Mr. White became division superintendent at Buffalo, N. Y., in 1941, transferring to the New York division and the New Jersey & New York in 1945, with headquarters at Jersey City, in which capacity he remained until his recent promotion. Mr. White was furloughed to the United States Army in 1944.

A. G. Kasson, whose retirement as superintendent of the Clover Leaf district, New York, Chicago & St. Louis, Frankfort, Ind., was reported in the *Railway Age* of November 6, was born on September 24, 1883 at Johnstown, Ohio. He entered the service of the Nickel Plate in 1906 as a night operator at Celina, Ohio, and subsequently held various assignments in Lafayette, Ind., Tipton and Muncie, and in Lima, Ohio. He was promoted to assistant superintendent at Frankfort on September 1, 1943, and advanced to superintendent at that point on July 1, 1944.

Richard G. May, Jr., whose appointment as superintendent of the Hudson and Mohawk divisions of the New York Central at Albany, N. Y., was reported in the *Railway Age* of October 23, was born at Murray, Pa., in 1904. Entering railroad service as a rodman in the district engineer's office, New York Central, at Syracuse, N. Y., in 1928, Mr. May was appointed assistant super-

Richard G. May, Jr.

visor of track at Cleveland, Ohio, in 1932. He was appointed trainmaster at Watertown, N. Y., in 1939, transferring to the River division at Weehawken, N. J., in 1941. Mr. May became assistant superintendent of the New York Terminal district in 1946, transferring to Grand Central Terminal last January.

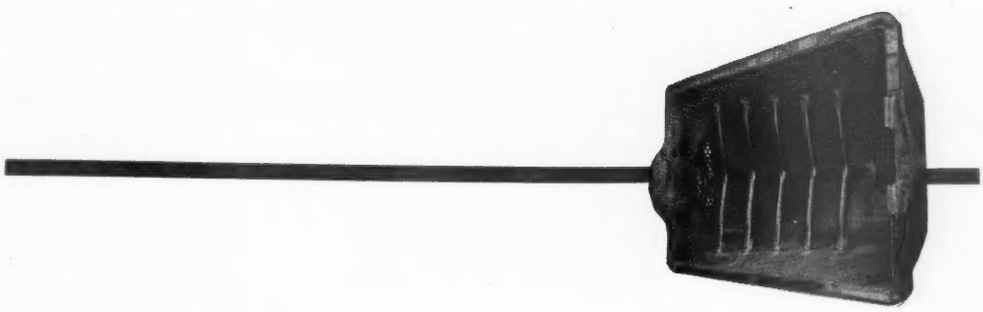
Thomas E. Gilhooley, whose appointment as superintendent of the Columbia district of the Atlantic Coast Line at Florence, S. C., was reported in the *Railway Age* of November 6, was born at Ronceverte, W. Va., and was graduated from Virginia Polytechnic Insti-

Thomas E. Gilhooley

tute, receiving a B. S. degree in 1933 and an M. S. degree in 1934. Mr. Gilhooley entered railroad service with the Chesapeake & Ohio in 1934 and became affiliated with the Atlantic Coast Line on August 11, 1947, as special assistant in the operating department at Wil-

News Department continued on next left-hand page

IN MODERNIZING STEAM MOTIVE POWER



MANY railroads are installing Security Circulators in their existing locomotives to increase steaming efficiency and to decrease boiler maintenance.

Steaming performance is improved because the additional evaporating surface aids the locomotive to get up steam more rapidly, while the quickened flow of water from the side water-legs (through the Circulators) over the crown sheet helps to maintain maximum boiler output.

Boiler maintenance is reduced because the Security Circulators definitely lessen honeycombing, flue plugging and cinder cutting. They also furnish an ideal support for a 100% brick arch and prolong the life of the brick.

SECURITY CIRCULATOR DIVISION

AMERICAN ARCH COMPANY INC.

NEW YORK • CHICAGO

mington, N. C. On September 8, 1947, he was promoted to assistant to general manager at Wilmington, and became assistant superintendent of the Columbia district last April 16, serving in the latter capacity until his recent promotion.

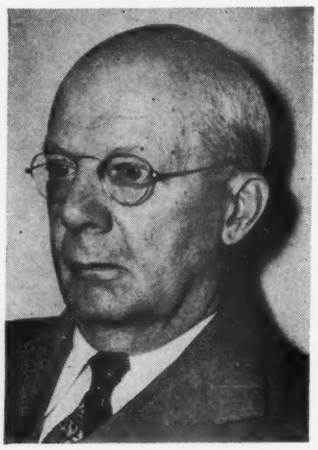
John C. Wallace, whose promotion to general manager of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in the *Railway Age* of November 6, was born at Harrisburg, Pa., on November 1, 1886, and received his engineering degree from Pennsylvania State College. Mr. Wallace entered railroad service in 1914 as assistant engineer of the Chicago, Milwaukee, St. Paul & Pacific and four years later went with the Lake Erie & Western, which later was consolidated with the New York, Chicago & St.

John C. Wallace

Louis, as engineer of structures. He served successively as engineer of the Lake Erie & Western district of the Nickel Plate at Indianapolis, Ind.; assistant chief engineer of the Lake Erie & Western and Nickel Plate districts at Cleveland, assistant chief engineer of the Nickel Plate system; and assistant general superintendent. On September 1, 1942, Mr. Wallace was appointed chief engineer of the system, which position he held until his recent promotion to general manager.

Horace B. Stetson has been named superintendent of the Long Island to succeed **Eugene L. Hofmann,** who has been appointed general superintendent of the Lake Division of the Pennsylvania at Cleveland, Ohio. Mr. Stetson was superintendent of the P.R.R.'s Monongahela Division at Pittsburgh, Pa.

A. R. Ayers, whose retirement as general manager of the New York, Chicago & St. Louis at Cleveland, Ohio, was reported in the *Railway Age* of November 6, was born at Toledo, Ohio, on October 26, 1878, and was graduated from Cornell University with a degree in mechanical engineering. He entered railroad service in 1900 as special engineer for the Lake Shore & Michigan Southern (now New York Central) and in 16 years became engineer of rolling stock and principal assistant engineer of the New York Central at New York.



A. R. Ayers

Mr. Ayers joined the Nickel Plate as superintendent of motive power at Cleveland on October 1, 1916. He was named assistant general manager on February 2, 1923, and became general manager on November 10, 1927, which position he held until his retirement.

Z. T. Komarek, whose appointment as superintendent of the New York, Chicago & St. Louis at Frankfort, Ind., was reported in the *Railway Age* of November 6, was born at Huron, Ohio, on August 10, 1900. Mr. Komarek received his civil engineering degree in 1924, prior to which time he entered railroad service as a car checker for the Wheeling & Lake Erie. He later joined

Z. T. Komarek

the Nickel Plate as a special apprentice at Fort Wayne, Ind., and served successively as night yardmaster at Fostoria, Ohio, special engineer at Cleveland, Ohio, general yardmaster at Fostoria and assistant trainmaster at Fort Wayne. He next held positions as trainmaster at Fort Wayne and as assistant to general manager at Cleveland. Mr. Komarek was serving as assistant superintendent at Muncie, Ind., at the time of his recent appointment.

Harry E. Deitz, whose appointment as superintendent of the Louisville & Nashville at Evansville, Ind., was reported in the *Railway Age* of October 9, was born on November 4, 1896, in Hamilton County, Ill. He first entered L. & N. service in the maintenance of way department at McLeansboro, Ill., in 1913, serving subsequently as agent, operator, dispatcher and night chief dispatcher at Evansville. Mr. Deitz was advanced to chief dispatcher in 1937, to assistant trainmaster at Hazard, Ky., in 1939, and to assistant trainmaster at Birmingham, Ala., in 1940. He was promoted to trainmaster at Birmingham on April 1, 1942, and transferred to Nashville, Tenn., on August 1, 1942. His next advancement was to the position of assistant superintendent at Evansville in 1944, which post he held at the time of his recent promotion.

Harry E. Deitz

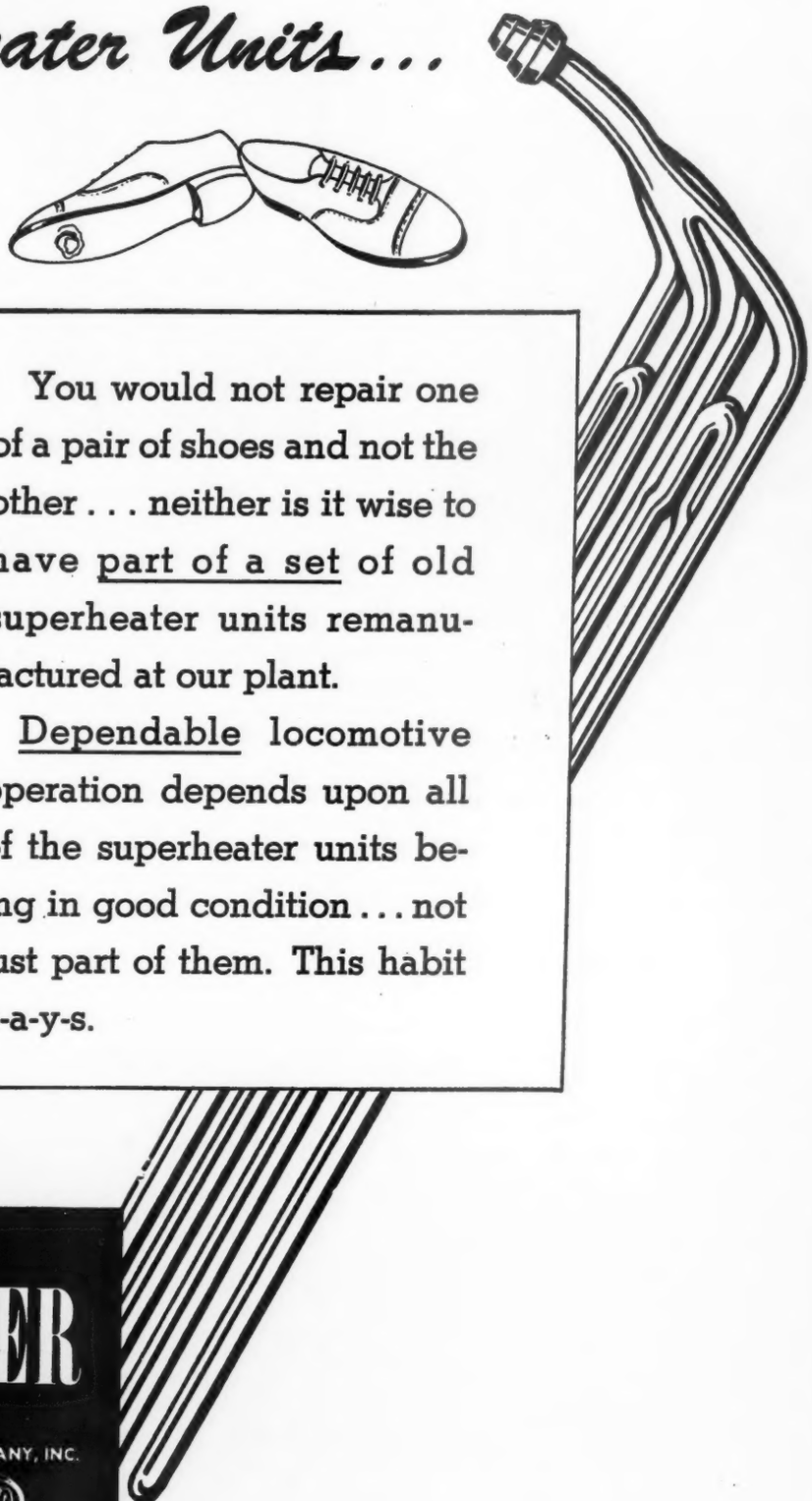
James O'Keeffe, whose retirement as general agent and superintendent of the Norfolk terminal of the Norfolk & Western at Norfolk, Va., was reported in the *Railway Age* of October 9, was born in Giles county, Va. Mr. O'Keeffe first worked for the Norfolk & Western as a scale clerk in Bluefield, W. Va., in October, 1899, and was promoted to weighmaster at Vivian, W. Va., a year later. In 1902 he was elevated to night yardmaster, then day yardmaster at Vivian. In 1906 he went to Williamson, W. Va., as night yardmaster, becoming general yardmaster there the following year. In 1908 he was advanced to assistant trainmaster, Pocahontas division, becoming trainmaster in 1921. Mr. O'Keeffe was promoted to superintendent of the Shenandoah division in October, 1934, and became general agent and superintendent at Norfolk on April 1, 1939.

P. C. Wingo, whose appointment as superintendent of the Shenandoah division of the Norfolk & Western at Roanoke, Va., was reported in the

News Department continued on next left-hand page

SHOES—

and Superheater Units...



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Railway Age of October 9, joined the N. & W. on July 31, 1922, as a machinist at the Roanoke shops. He was furloughed to attend school and returned as a shop inspector in December, 1924. After serving in several capacities in the Roanoke shops Mr. Wingo was promoted to draftsman in

P. C. Wingo

the motive power office in September, 1935. He was appointed shop engineer there in 1937, and was promoted to assistant road foreman of engines at Bluefield, W. Va., the next year. Mr. Wingo served as assistant trainmaster on the Pocahontas division from October, 1941 to September, 1943, when he was advanced to trainmaster of the Radford division. He became assistant superintendent of the Pocahontas division at Bluefield last February.

TRAFFIC

James R. Moriarty, whose retirement as assistant general passenger traffic manager of the Atchison, Topeka & Santa Fe at Chicago, was reported in the *Railway Age* of November 6, was born at Preston, Minn., and entered railway service in 1897 as a telegrapher on the Santa Fe. He subsequently served as operator and agent of that road at various points in Kansas, Oklahoma and Texas before being advanced to ticket agent at Wichita, Kan., in 1899. In 1905 he was promoted to city passenger agent, and in 1912 he was appointed ticket agent at Chicago, where he became city passenger agent two years later. In 1920 Mr. Moriarty was advanced to division passenger agent, and in 1936 he was appointed assistant general passenger agent, also at Chicago. He became assistant passenger traffic manager in 1937, advancing to assistant general passenger traffic manager in 1946.

Percy G. Holmes, whose appointment as passenger traffic manager of the Great Northern at St. Paul, Minn., was reported in the *Railway Age* of November 6, first joined the G. N. in 1911 at Auburn, N. D. Mr. Holmes served successively as agent and cashier at Moorhead, Minn., and as agent at several points in North Dakota, before going

Percy G. Holmes

to Grand Forks, N. D., as ticket agent in 1927. He went to St. Paul in 1928 as traveling passenger agent, advanced to district passenger agent at that point in 1940, and to assistant to passenger traffic manager in January of this year. Mr. Holmes was serving in the latter position at the time of his recent appointment.

MECHANICAL

Frank W. Bunce, whose promotion to mechanical superintendent—steam power, of the Chicago, Milwaukee, St. Paul & Pacific at Milwaukee, Wis., was reported in the *Railway Age* of October 2, was born in that city on March 9, 1897. He began his career with the Milwaukee in 1914 as a caller, advancing through successive positions at Milwaukee as machinist apprentice, machinist, gang foreman and night roundhouse foreman. Mr. Bunce went to Green Bay, Wis., in 1939 as roundhouse foreman and returned to Milwaukee in 1941 as day roundhouse foreman. During the period from January 16, 1942, to December 1, 1947, he served in the following positions: roundhouse foreman at Ottumwa, Iowa, and at Milwaukee; assistant shop superintendent at Milwaukee and Minneapolis, Minn.; shop superintendent at Minneapolis; division master mechanic at Chicago; and shop superintendent at Milwaukee. Mr. Bunce was serving in the latter capacity at the time of his promotion.

Aaron B. Cole was named chief mechanical officer of the Korean National Railroads, with headquarters at Seoul, Korea, effective early in September. The Korean National Railroads located in the American-occupied portion of that country are being operated by the Department of Transportation of the Civil Affairs Section of the Department of the Army. Mr. Cole is a graduate of Purdue University and was for many years connected with the Westinghouse Electric & Manufacturing Co. in its railway engineering, sales and advertising departments. Later he was employed by Westinghouse Electric International Company, American Car & Foundry Motors Co. and the Export Division of General Motors Corporation. Mr. Cole entered the service of the Federal Coordinator of Transportation at the start of World War II and has subsequently held positions with the Office of Defense Transportation and the Office of Military Government (U. S.) of Germany.

ENGINEERING and SIGNALING

V. V. Holmberg, whose appointment as engineer maintenance of way, Chicago & Western Indiana and the Belt of Chicago, with headquarters at Chicago, was reported in the *Railway Age* of October 2, was born on May 8, 1911, in Council Bluffs, Iowa. Mr. Holmberg attended the University of Missouri and began his railroad career with the Wabash in 1928 as a track laborer, working intermittently during school years on the Western district of

V. V. Holmberg

the Wabash at Moberly, Mo. He subsequently worked with the U. S. Coast & Geodetic Survey, returning to the Wabash in 1935, and holding positions as chairman, rodman, bridge inspector and assistant engineer. In July, 1937, Mr. Holmberg joined the C. & W. I. and Belt of Chicago as levelman. He later served successively as draftsman, chief clerk, track supervisor and bridge and building supervisor. He was serving as assistant engineer at the time of his recent appointment.

SPECIAL

J. Fred Smith, passenger traffic manager of the Bangor & Aroostook at Bangor, Me., has been appointed director of publicity, in addition to his other duties as passenger traffic manager.

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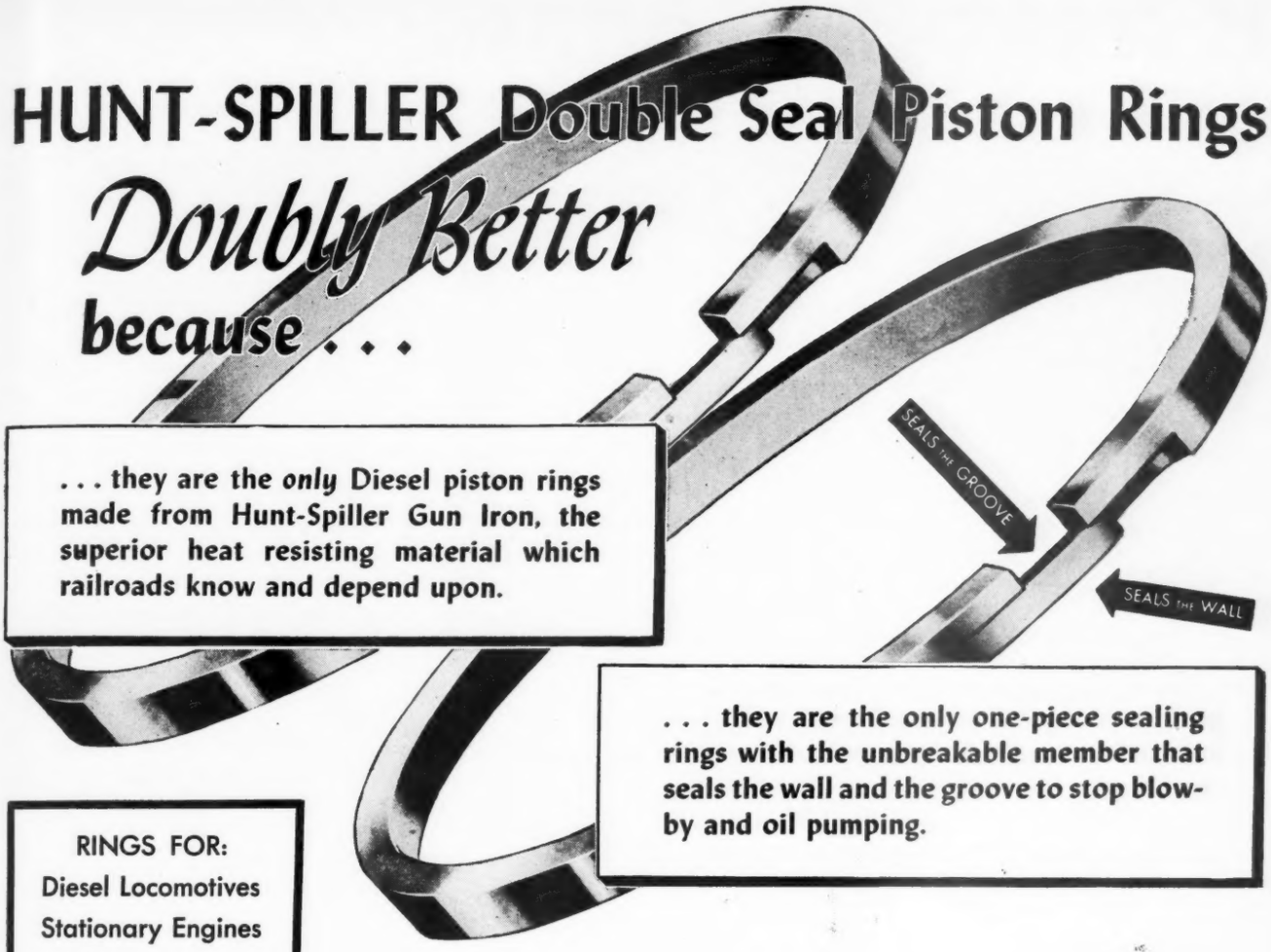

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General News

Alabama, Mississippi Express Rates To be Investigated by Commission

The Interstate Commerce Commission has instituted investigations of intrastate express rates in Alabama and Tennessee, following the refusal of the regulatory agencies of those states to permit the Railway Express Agency to bring the intrastate scales into line with the Ex Parte 163 interstate adjustment. Invesigation of the rate differential was sought in petitions filed with the commission by the R.E.A.

The Alabama proceeding has been docketed as No. 30081 and assigned for hearing at Montgomery, Ala., on December 6 before Examiner C. E. Stiles, while the Mississippi proceeding, Docket No. 30082, has been assigned for hearing in Jackson, Miss., on December 9, also before Examiner Stiles.

D. T. & I. Diesel Shop Features Set-up For Removing Gas Fumes

Detroit industrial executives, on November 4, were guests of the Detroit, Toledo & Ironton for an inspection of the road's new Diesel repair shops at Flat Rock, Mich., and of the latest types of freight cars on display there. The Diesel shop, located adjacent to the Flat Rock roundhouse, at which the road's steam locomotives are serviced, was built at a cost of $500,000 to handle seven new General Motors 1,000-hp. switching locomotives and two 600-hp. switchers already owned.

The Diesel shop has been equipped with the latest-type machinery and facilities, including a highly effective arrangement for removing the exhaust gases from idling Diesel engines without loss of the heated inside air of the shop. The removal system comprises four adjustable overhead ducts which fit over the exhaust pipes of locomotives on two adjacent repair tracks and which are constructed and mounted in a manner that avoids interference with the overhead 25-ton traveling crane. The four ducts lead to a central collecting point and suction fan on the roof which dissipates the exhaust fumes to the atmosphere.

Two of the latest-type freight cars delivered to the line were also shown to the visitors. Both cars are equipped with the Great Lakes Steel Corporation's nailable steel flooring. The first type is a box car intended primarily for loading by industries which have experienced considerable difficulty with wood floors due to break-throughs of mechanical handling equipment. The second, a gondola, is expected to be especially useful in serving Detroit metal-working plants which ordinarily must use wood-floor cars for handling finished metal products and conventional steel-plate-floor gondolas for loading metal scrap. As the new gondolas will handle both types of freight, a substantial reduction in waste car movement is anticipated.

Representation of Employees

The Technical Engineers' Committee has replaced the International Federation of Technical Engineers, Architects and Draftsmen's Unions as the representative of Texas & Pacific technical engineers, architects, draftsmen and allied workers below the rank of officials, as the result of a recent election which has been certified by the National Mediation Board. The vote was 28 to 24.

The N.M.B. also has certified the National Council of Railway Patrolmen's Unions, American Federation of Labor, as the representative of patrolmen (watchmen) employed by the Arkansas & Memphis Bridge & Terminal and the Order of Railroad Telegraphers as the representative of agents and telegraphers employed by the Beaver, Meade & Englewood. These employees formerly served without representation.

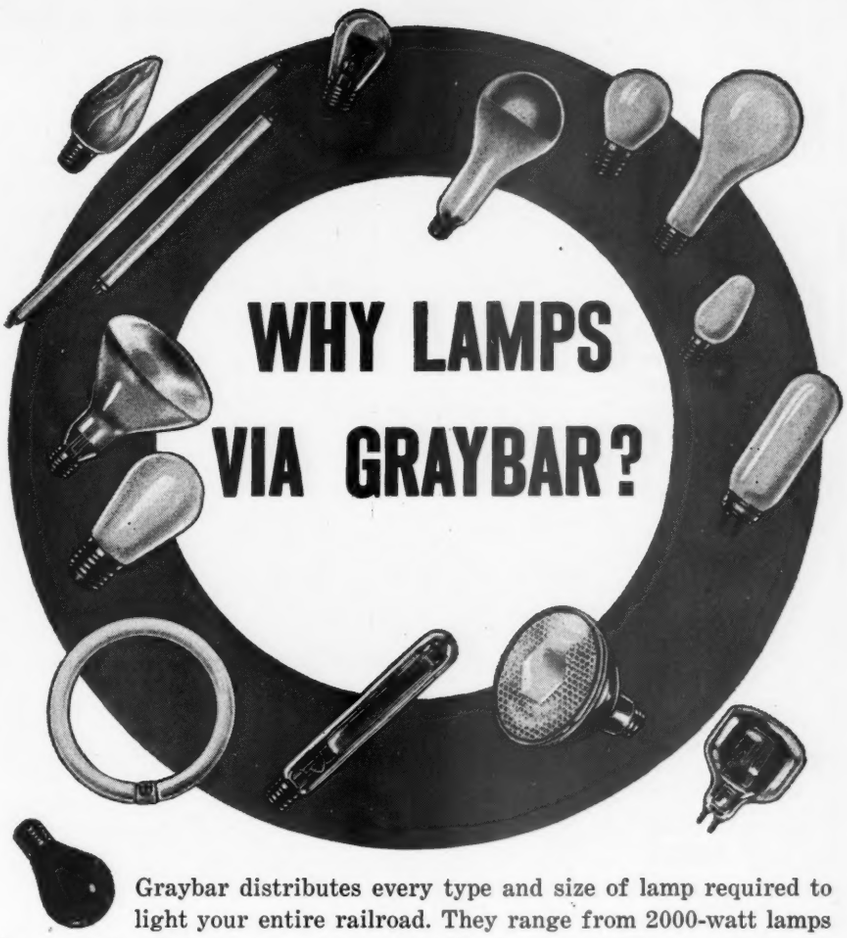
The United Railroad Workers of America, Congress of Industrial Organizations, has replaced the Brotherhood of Maintenance of Way Employees as the representative of powerhouse employees and railway shop laborers of the Terminal of St. Louis, and the American Railway Supervisors Association has succeeded the Railway Employes' Department, American Federation of Labor, as the representative of mechanical department foremen and/or supervisors of mechanics employed by the Cincinnati (Ohio) Union Terminal, as the result of recent elections certified by the National Mediation Board.

The American Railway Supervisors Association, Inc., has replaced a local affiliate of the Railway Employees' Department, American Federation of Labor, as the representative of mechanical department foremen employed by the Missouri-Illinois, as the result of a check of representation authorizations conducted by the National Mediation Board. The A.R.S.A. also has been certified to represent mechanical department foremen and/or supervisors of mechanics employed by the Wheeling & Lake Erie. These employees formerly were not represented by any organization.

The Railroad Yardmasters of America has succeeded the Railroad Yardmasters of North America, Inc., as the representative of yardmasters employed by the South Buffalo, while Nashville, Chattanooga & St. Louis train porters, attendants and maids, who formerly served without representation, are now represented by the United Transport Service Employees, C.I.O.

The N.M.B. also has certified the United Construction Workers District 50, United Mine Workers of America, as the representative of yardmen (conductors and brakemen), locomotive engineers, maintenance of way employees and machinists, including their helpers and apprentices, employed by the Indiana Northern. These employees also had formerly served without representation.

The United Railroad Workers of America, Congress of Industrial Or-



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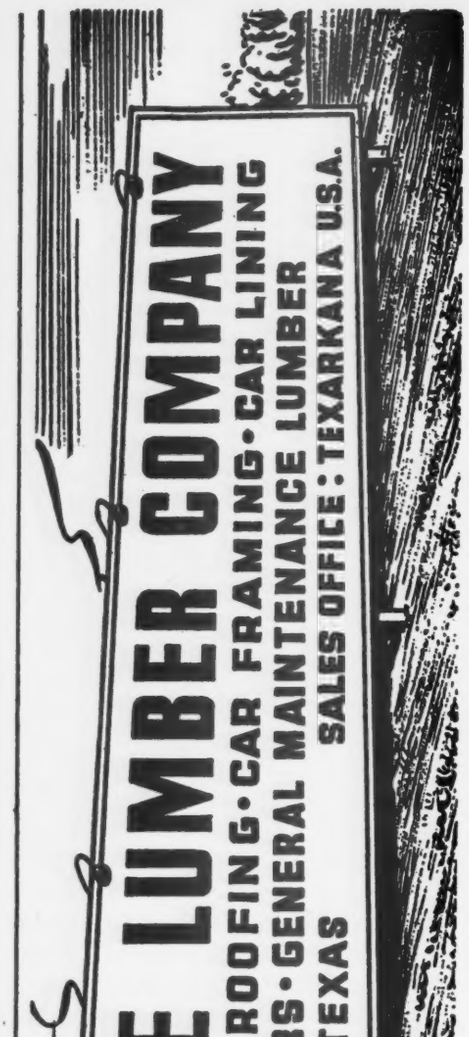
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ganizations, has retained its right to represent maintenance of way and timber treating plant employees of the Atchison, Topeka & Santa Fe, as the result of a recent election certified by the National Mediation Board. The C. I. O. union defeated the challenging Brotherhood of Maintenance of Way Employees, American Federation of Labor, 7,325 to 4,259.

As the result of two elections certified by the N. M. B., the same C. I. O. union has replaced the International Longshoremen's Association, A. F. of L., as the representative of Central of New Jersey marine coal dumper employees; however, it has been succeeded by the International Brotherhood of Firemen, Oilers, Roundhouse and Railway Shop Laborers, operating through the Railway Employees' Department, A. F. of L., as the representative of Chicago Union Station powerhouse employees.

The United Railroad Workers of America, C.I.O., has replaced District 50, U. M. W. of A., as representative of marine float bridge operators employed by the Erie and Lehigh Valley, as the result of a check of representation authorizations conducted by the N. M. B. The U.M.W. of A. advised the board it had "no further interest" in representing the employees involved.

As the result of two elections certified by the board, the Railroad Yardmasters of America has replaced the Railroad Yardmasters of North America, Inc., as representative of yardmasters employed by the L.V., and the O.R.T. has extended its coverage of Ann Arbor agents, operators and towermen to include agents employed by that road at Cadillac, Mich., Owosso, Alma, Mt. Pleasant and Ann Arbor.

As the result of other checks of representation authorizations, New York, New Haven & Hartford boat dispatchers are now represented by the American Train Dispatchers Association; and Burlington-Rock Island coach porters by the Joint Council of Dining Car Employees, Hotel & Restaurant Employees International Alliance. None of the foregoing employees formerly was represented by any organization.

Reversing a previous determination, the board has now held that parlor car attendants and bus boys employed by the New York, New Haven & Hartford should be included in the group with parlor car porters and space assigners for the purpose of determining representation for collective-bargaining purposes. The board had previously held that the parlor car attendants and bus boys were part of the craft or class of dining car employees. On the basis of its new ruling it has ordered an election to determine representation for the group as enlarged. The order sets aside a certification issued by the board on the basis of a previous election (won by the Brotherhood of Sleeping Car Porters) from which the parlor car attendants and bus boys were excluded.

The N.M.B. has certified the United

(*Continued on page* 247)

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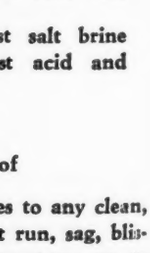

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(*Continued from page* 236)

Railroad Workers of America, C.I.O., as the representative of marine engineers, firemen and oilers employed by the Erie, and marine engineers and firemen employed by the Long Island. The employees involved formerly were represented by District 50, U. M. W. of A. which advised the board that it had no further representation interests. The Erie case was decided by a check of employee representation authorization-cards and the Long Island proceeding by an election in which the C.I.O. union defeated the International Longshoremen's Association, A. F. of L., 24 to 16.

As the result of other elections certified by the N.M.B., the Switchmen's Union of North America, by an 833 to 608 victory over the Brotherhood of Railroad Trainmen, has retained its right to represent yardmen, including foremen, helpers and switchtenders, employed by the Great Northern; the Brotherhood of Railway Carmen of America, functioning through the Railway Employees' Department, A. F. of L., has replaced the Brotherhood of Railroad Shop Crafts of America as the representative of carmen, helpers and apprentices, including coach cleaners, employed by the Maine Central; and the B. of R. T. has succeeded the Amalgamated Association of Street & Electric Railway Employees as the representative of bus drivers employed by the Chicago, Aurora & Elgin.

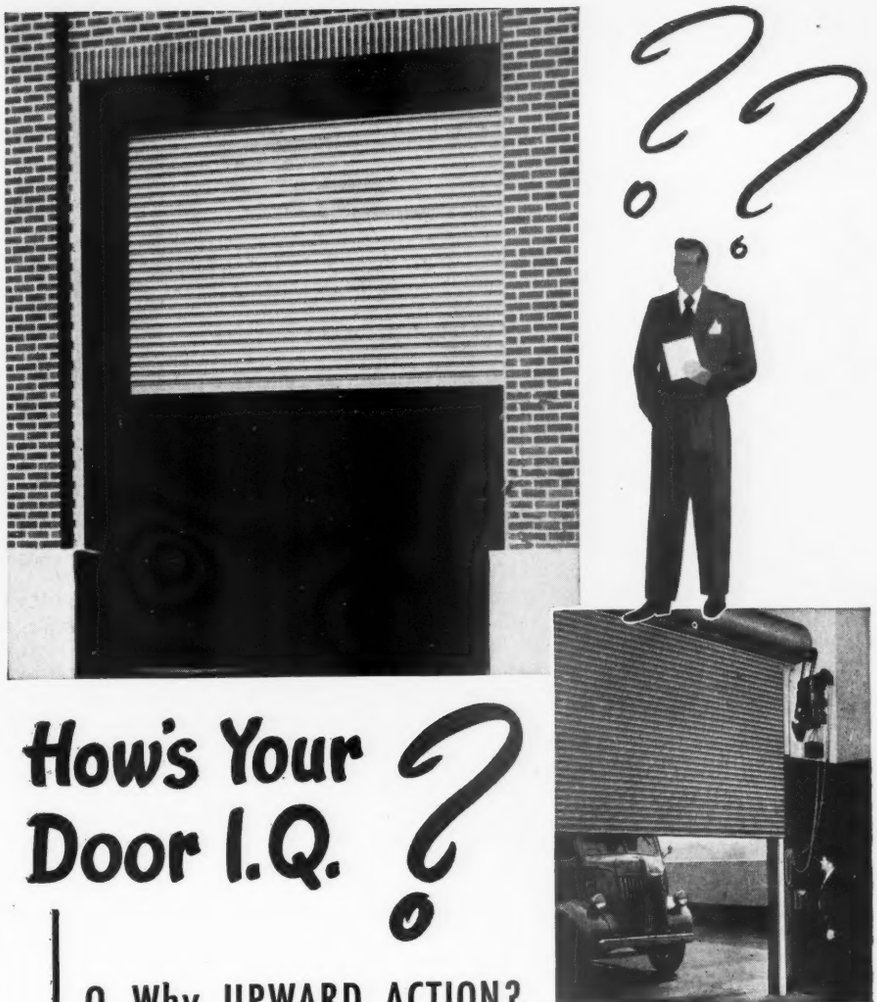
The N.M.B. also has certified the O.R.T. to extend its coverage of Ann Arbor radio-operator pursers to include non-radio-operator pursers and the Brotherhood of Railroad Signalmen of America to represent signal department employees of the Peoria & Pekin Union. The latter employees formerly were not represented by any organization.

Benefit Payments Drop Slightly

All types of retirement and survivor benefit payments made under railroad retirement legislation decreased $400,000 during August, according to the Railroad Retirement Board's October "Monthly Review." Total benefit payments amounted to $22,600,000 during the month, and 7,100 retirement and survivor benefits were awarded—3,400 less than in July.

At the end of August, 327,500 monthly benefits of all types were being paid. The average monthly retirement annuity awarded during the month amounted to $78.34, and monthly survivor benefits and lump-sum awards averaged $23.46 and $318.55, respectively.

With the exception of applications filed, activities under the unemployment program increased during August, compared with July. Claims numbered 66,200, or 11 per cent above the previous month, and unemployment benefit payments amounted to $1,638,000, or 31 per cent higher than in July. The 13,200 unemployment applications represented a 67 per cent drop from the July figure. A decline in applications,



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states the board, usually occurs in August, because each worker registering unemployment must file a new application with his first claim of the benefit year.

Sickness benefit operations during August also registered increases, except in applications. Railroad workers filed 82,700 claims, a greater number than in any month but March, 1948. Benefit payments totaled 76,600, and the net amount paid was $2,610,000. Applications under the sickness program totaled 17,400, less than half the July figure.

The board points out that the "residual payment" provision of the 1948 amendments provides that railroad employees and their survivors will receive benefits at least equal to four per cent of an employee's earnings in 1937-46, plus seven per cent of earnings in later years. Thus, a railroad employee and his family are guaranteed that the benefits they receive will be greater than the taxes the employee paid. The provision, in effect, restores the four per cent lump-sum death benefit which had been eliminated by the 1946 amendments.

D. of J., F.T.C. Officers Heard by Trade Policies Committee

The Senate Trade Policies Committee this week was scheduled to hear testimony from steel producers, among other industry spokesmen, as it continued hearings in connection with its investigation of the prospective impact of the Supreme Court's April 26 decision upholding the Federal Trade Commission's "cease and desist" order against the cement industry's basing point system of pricing. The hearings, at which representatives of the "railroad industries" are slated to offer their presentations during the week of November 28, were launched November 9, as reported in *Railway Age* of November 13.

The committee, meanwhile, last week also heard the "personal" views of members of the Department of Justice and the Federal Trade Commission staffs. These witnesses included H. A. Bergson, assistant attorney general in charge of the D. of J.'s anti-trust division; L. C. Paulson, assistant chief trial counsel of the F.T.C.; W. B. Wooden, associate general counsel of the F.T.C.; and A. C. Phelps, chief of the F.T.C.'s Division of Export Trade.

Mr. Bergson declared that, in his opinion, the "predicament" which is pictured as the result of the court decision is "greatly overstated." "In short," he continued, "it is my view that the existing pricing methods may be continued without fear of any resultant penalty under the Trade Commission Act. The commission has given formel assurance that the statute, as applied to the methods of pricing, will be utilized as a true adjunct to the anti-trust laws. The courts have not definitively held that the statute has a broader scope than that which the commission proposes to give to it.

It would therefore seem that the demand for legislation to legalize freight absorption and delivered price is, as far as this statute is concerned, decidedly premature."

Another conclusion reached by Mr. Bergson is that the existing decisions "do not definitely or even persuasively" establish that freight absorption and delivered prices are illegal under Section 2 of the Clayton Act, under practically all circumstances. That section makes it unlawful, subject to certain qualifications, to "discriminate in price" between different purchasers of commodities of like grade and quality.

Mr. Paulson asserted that he does not believe the Supreme Court has as yet "passed upon the legality of freight absorption." "The cement case," he told the Senate group, "is just another case in which the Supreme Court saw combination and conspiracy to suppress competition and fix prices."

Mr. Paulson is of the opinion that, if the government requires uniform f.o.b. mill prices, it will promote rather than eliminate monopoly. "As to what the law on basing point selling is today," he went on, "I would say that the net result of decided cases is that sellers who have been convicted of price fixing, or suppression of competition by discriminating in price pursuant to a basing point plan, must thereafter have a plant price at their plants which is not fictitious and offer to sell at that price when requested."

Mr. Wooden asserted that the apprehensions of businessmen regarding the effect of the so-called cement decision do not grow out of the decision itself, but out of the possible implications of the court's opinion. All that the court really decided, he said, was that the F.T.C. had established by "substantial and convincing" evidence the existence of a price-fixing conspiracy of which the basing-point system was the all-pervading mechanism.

The cement decision, Mr. Wooden stated, stands for nothing but the application or extension of old law to a new set of facts. "The old law," he added, "is the law against price fixing conspiracies on what constitutes relevant, substantial and circumstantial evidence of their existence. Even the application of the anti-price-discrimination statute was nothing but a recognition of an old principle of law that every part of a price fixing conspiracy can be reached, coupled with the conceded fact that the identical delivered prices fixed by the basing point system were the mathematical reflection of a systematic and reciprocal discrimination in net factory prices."

Mr. Wooden also charged that most of those who disagree with the court on the cement case do so because they misapprehend the significance of the facts involved in the case. "Unless the members of industries other than cement are cooperating to maintain a basing point system under which purchasers everywhere are unable to buy

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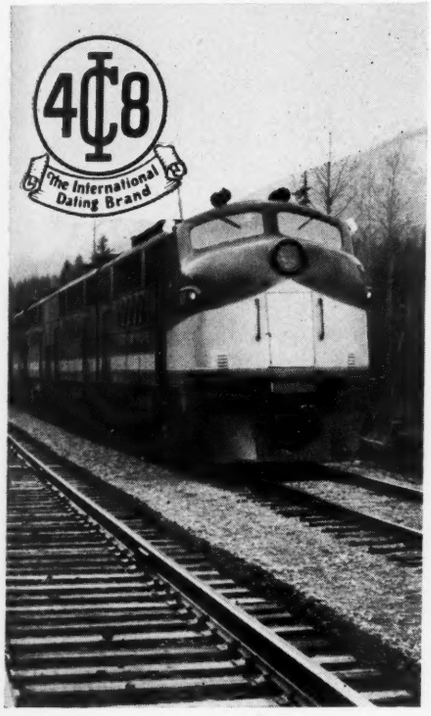

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more cheaply from one seller than another anywhere, they do not come within the law of the cement decision," he said. "If they are so cooperating their cooperation is what the courts have held from time immemorial to be the essence of conspiracy."

Mr. Phelps, meanwhile, declared that "no one could characterize the present confused situation as desirable from a legal or administrative standpoint or one which would not justify study and serious consideration of remedial measures." Both the cement decision and other decisions, he said, contain "an almost hopeless entanglement of the legal aspects of conspiracy with those of price discrimination." The important thing about the cement decision, he added, is that it holds unequivocally that a seller who receives varying mill net prices on sales to different customers in different localities is discriminating in price within the prohibitions of the Robinson-Patman Act.

Mr. Phelps said he was of the opinion that the "fundamental fallacy" in the cement decision is the holding that a differential in mill net prices received by a seller, resulting either from a charge for non-existent freight or from the absorption of freight charges, constitutes price discrimination within the meaning of the Robinson-Patman Act. "The receipt of different mill nets by a seller thus, in and of itself," he added, "becomes presumptively unlawful. And by the Morton Salt decision, this presumption has become practically conclusive, because price discriminations are now unlawful if there is any 'reasonable possibility' that they will lessen or injure competition."

Aluminum Air Ducts Approved by Underwriters

The National Board of Fire Underwriters has approved aluminum for use in the installation of ducts for air conditioning, warm air heating, air cooling, and ventilating systems. The approval has been granted on the recommendation of the Committee on Air Conditioning of the National Fire Prevention Association. The committee's recommendation is based on a careful study of aluminum's satisfactory performance in a large number of duct applications.

The 1948 edition of N. B. F. U.'s Pamphlet No. 90 will be issued soon and will contain the revision to include standards for ducts constructed of aluminum in residences as well as industrial buildings. Copies may be obtained from N. B. F. U. offices, 85 John street, New York 7; 222 W. Adams street, Chicago 6, or the Merchants Exchange building, San Francisco 4, Calif. They may also be secured through local fire-inspection bureaus which work closely with the N. B. F. U.

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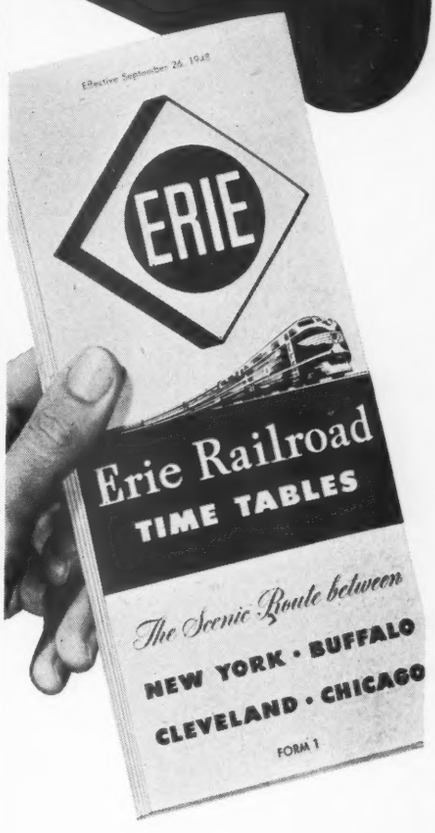

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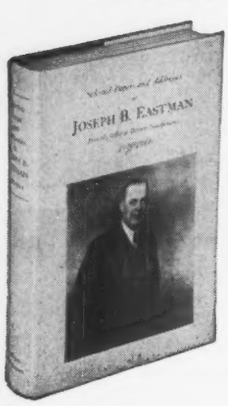

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